FIGURE 1-A

>19:60156701-60251100

1	ctaaaaatac	aaaaaaatta	gctgggcaca	gtggtgaatg	cctgtaatcc	cagctacttg
61	ggaggctgag	gcaggagaat	tgcttgaatc	cgggaggcag	aggttgtagt	gagccgagat
121	tgcagcactg	cactccagcc	agggtgacaa	agtgagactc	cgtctcaaaa	aaaaaaaaa
181				gtgggtgccc		
241	ggctgaggca	ggagaactgt	ttgaacctgg	gaggcagagg	ttgcagtgag	ctgagatcgt
301	actactgtac	tccagcctgg	gctgcagagt	gaaactatct	caaaaataag	taaataaaag
361				cagatgggag		
421				caatcctccc		
481				gctaacttat		
541				cttgaagaag		
601				tgagacagga		
661	ccactcctcc	cttgattgtc	atcacagctc	ccacgtggga	caagatggtg	tcttcggcRc
721	agatgggctt	caacctgcag	gctctcctgg	agcagctcag	ccaggatgag	ttgagcaagt
781				cacacgagct		
841	aggtagacaa	ggctgatggg	aagcaactgg	tagaaatcct	caccacccat	tgtgacagct
901	actgggtgga	gatggcgagc	ctccaggtct	ttgaaaagat	gcaccgaatg	gatctgtctg
961	agagagcaaa	ggatgaagtc	agaggtgagY	ggaaatcggt	ccacactgtg	tcctaggagg
1021	aagcaggcgt	cctctccagg	actttagaaa	ttcagaaggc	caggcgcgct	ggctcacgcc
1081	tgtcgtccca	gccctttggg	aggctgaggc	ggttggacca	cctgagggtc	aggagtttga
1141	gaccagcctg	accaacatgg	tgatgaaaca	gcatctctac	taaaaataca	aaaatttgct
1201	ggacgtggtg	gcagacacct	gtaatcccag	ctactccggg	aggctgaggc	aggagaatca
1261	cttaaatcta	ggaggcgggg	gttgctatga	gccgagatca	cgccattgca	ccccagcctg
1321	ggcaacaaga	gcaaaattct	gtctcaaaaa	aaaaaagaaa	tggcattgag	gcttggagag
1381				tcttcataaa		
1441	cttattttct	acctacttct	tttttttt	ttttttgtcc	ttttatttt	ttattttta
1501	ttttattatt	attattttt	ttattatact	ttaagtttta	gggtacatgt	gcacattgtg
1561	caggttagtt	acatatgtat	acatgtgcca	tgctggtgcg	ctgcacccac	taactcgtca
1621	tctagcatta	ggtatatctc	ccaatgctat	ccctccccc	tcccccacc	ccaccacagt
1681	ccccagagtg	tgatgttccc	cttcctgtgt	ccatgtgatc	tcattgttca	attcccacct
1741	atgagtgaga	atatgcggtg	tttggttttt	tgttcttgtg	atagtttact	gagaatgatg
1801				gacatgaact		
1861	ttgtattcca	tggtatatat	gtgccacatt	ttcttaatcc	agtctatcat	tgttggacat
1921	ttgggttggt	tccaagtctt	tgctattgtg	aataatgctg	caataaacat	acgtgtgcat
1981	gtgtcttat	agcagcatga	tttatagtca	tttgggtata	tacccagtaa	tgggatggct
2041	gggtcaaatg	gtatttctag	ttctagatcc	ctgaggaatc	cccacaccga	cttccacaat
2101	ggttgaacta	gtttacagtc	ccaccaacag	tgtgaaagtg	ttcctatttc	tccacatcct
2161	ctccagcacc	tgttgtttcc	tgacttttta	atgatcgcca	ttctaactgg	tgtgagatga
2221	tatctcatag	tggttttgat	ttgcatttct	ctgatggcca	gtgatgatga	gcatttttc
2281				tttgagaagt		
2341				ttgtaaatta		
2401	ctttcaggta	tcgtacagtt	ggcctaacat	atctgtggat	ttaaccaatc	ctagatcaaa
2461	aataatgggg	gcaaagacaa	ttaaaaataa	caatacaata	aaatgcacat	gaactatggt
2521	tatttaactc	ttcttgagag	aggatctcac	tctgtcaccc	aggctggaat	ttagcagcac
2581			-	gggttcaagc		
2641				ccatgcctgg		
2701				ccatgttagc		
2761				aaagtgttgg		
2821	gcacccagcc	agcaagtgca	tttagaacta	ctctactttc	taccccataa	ctttttttt
2881				cccaggatgg		
2941				agtgtttctc		
3001				cctggctaaa		
3061				tgaactcctg		
3121				tgagccgcca		
3181		_		tggagtacaa		-
3241		_		ctaccactat		_
3301				agatagggtt		
3361				tcctgccttg		
3421				gcagctttat		
3481				taaaaaatgt		
3541				caagccttaa		
3601				actttgggag		
3661	tgaggccagg	agtttgagac	cagtcaggcc	aatgtggtga	aaccctgtct	ctactaaaaa

FIGURE 1-B

3721	tataaaaaaa	tcagccgggc	ataataacac	actectotao	teccanetae	ttaggagget
3781					-	
		gattgcttga				
3841		gcctgggtga				
3901	ggtattaatt	acacaatgga	atactcctca	accttaagga	actcctatct	ttttatttaa
3961	aaattgccag	ttttatttca	gctagagatc	actttttagc	ataatgtttc	ctgtctttaa
4021	caatgggtga	gggtttttt	tttttttt	ttggtttggt	ttggattttg	gttttgcttt
4081		tttcactctt				
4141		tcctcccagg				
4201		cctaccacca		-		
4261				-		
		cagactggtc				
4321		gggattacag				
4381	-	gaggttacaa	-			
4441	tacgaaggtc	tgggctctga	aaaagataca	aattttcttt	ccatgccaat	agcRctcaca
4501	cagacatggt	gaatgttcct	gaaacccgcc	ggactttctg	taagaagtgt	ggcaagcacc
4561	acccccacaa	agtgacacaa	ggcaaggatt	cttggtatgc	ccaggggaag	tagtgttatg
4621	acaggaagca	gagtggctat	ggtgggcaga	ctaagccgat	tttccqqaaa	aaggctaaaa
4681		gattgtgcta				
4741		aaagatacaa				
4801		gaggtgggcg				
4861		catctctact				
4921	-	tactcaggaa				
4981		caagattgtg				-
5041	_	gcaagcattt				
5101	ttctaaRtgt	catcttttct	tttatgaagg	caataaaatc	ttgagcttat	ggtaaaatgc
5161	aaaattttcc	ccccttctcc	tttttcagaa	gcagctttga	aatcctttaa	taaaaggaaR
5221	cctctatcat	taggtaagtt	acctcattta	taacttttat	tcttcatgtg	agatctgggg
5281	actcgggcct	ttgttttaag	gagaatgtgc	tgagcactaa	gaatgcaaag	aaatqccqqa
5341		ctgctcccag				
5401		cacgatcgcg				
5461		ctttqaatct				
5521		taggctgaag				
5581						
		cagttctcct				
5641		gctaattttt				
5701		aactcctgac				
5761		tgagccacca		_		
5821	tttttttt	ttgaaacagg	gcttcactct	gtcacttagg	ctggagtggt	gcaatcatgg
5881	ttcactgcag	ccttgacctc	ccaagctctg	gtgatcctcc	tgcctcagcc	tcctgagtag
5941	ctgggaccac	aggcacttgc	caccatgcct	ggctaatttt	tttcactttt	tgtagagaca
6001		atgttgccca				
6061		aaactgctgg			_	_
6121		gaagattatt				-
6181		agtgcagtgg		_		
6241		ctgcctcagc				
6301			-			_
6361		ttttgtgttt				
		gaccttgtga				
6421		gcgcccggcc				
6481		ttgcagtggc				
6541						tgccacacct
6601	gactaatatt	tgtatttttg	gtagggacag	tttcactatg	ttgccagata	tggtgtcaaa
6661	ctcctggtct	caagtgatcc	tcccaccttg	gcctcccaaa	gtgctgggat	tacagacatg
6721	attcaccaca	cctggccatg	aagacttttt	ttttttggac	aaagtctcac	tctgttgccc
6781	aggatggaat	gcagtggcat	gatctcagct	cactgcaacc	tctgacctcc	gcctcccggt
6841		ctcttgcctc				
6901		tttttgtaat	-			-
6961		tgacctcgtg				
7021						
		tgcgcctggt				
7081		agtgcagtgg				
7141		ttagcctccc				
7201		tttttagtag				
7261		aatgaactgt	_	-		
7321	ccacctcacc	tggtggtgaa	gactctaaag	gctcttctca	gatcagcctt	tgtcctgaat
7381	ttcacatgcc	cgtgtccagt	tccctcccca	gcatctttc	aggagttcca	tggactcacc
7441		ccagggttaa				
7501		tttttttga				
		5	JJ-9	J J =	5 5 5 -	J - 5 - 5 - 5

FIGURE 1-C

```
7561
       tggagcgatc ttggctcact gcaatctccg cctcctgggt tcaagcaatt cccttgcctc
7621
       agcctcgcaa gtagctggga cttacaggta acacaccacc atgcccggct aattttttgt
7681
       tttagtagag acggggcttc accatgttgg ccgggatggt ctcgatctcc tqacctcatg
7741
       atcogcotgo cttggcotco caaagtgttg ggttacaggo atgagocaco atgccoggot
7801
       gattccacct tgttcttaca ttctttccca gttcatttta aatttatcta cctcatcaqa
7861
       aactaggggg ttaggcctgg caggcagatc acctgaggtt gggagttcga gaccagcctg
7921
       accaacgtag agaaaccctg tctgtactaa aaatacaaaa ttagccaggt atggtggcac
7981
       attoctgtaa toocagotac tooggaggoo gaggoaggag aatcacttga acccaggagg
8041
       cggaggttgc agtgagccga catcacacca ttgcattcca gcctgggcaa caagagcaaa
8101
       actacatctc aaaaaaaaag aaaaactagg cagttaatcc tcaaagcctt tccagtggcc
8161
       8221
       accatgtgtt ctgaactact taggaattct caccagaaag gcacataaac ctgggatcat
8281
       ggcctaatgt actttcactt ttacatccag taccttatca acgtcctttt tagtacctaa
8341
       totaggotto actactgaga ctcaggggto caacttgago catcttggag toccactgco
8401
       agcacagcaa caggcctgta atgccgccct ttttctccag ggataacacg gaaagaacga
8461
       ccacctctag acgtggacga aatgctggag cgcttcaaaa cagaagcaca aggtgggtgt
8521
       caggacetee aatgttggag teagetgagg aageeeeeg ttettgetge tateteetgt
8581
       tcctttgaag aaccccatct ctctccaatc ttttcctcca ctattcttaa tgtgcccact
8641
       gtctcctgga gaatgccaac ctcccttccR taagaataga gggaagaacg aacgttgcag
8701
       {\tt agaaattagaa\ ctcagtttg\underline{t}\ agaaagttag\ gagcacagcg\ cagaagttt\ ttgtttttgt}
8761
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8821
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8881
       tgagtagctg ggattatagg cacctgccac cacacccagc taattttttt tttttttt
8941
       gagacgaagt cttgttcttg tcacccaggc tggagtatag tggcaccatc cctgttcact
9001
       gcaacctccg cctcccagat tcaagtgatt gtcctgtctc agcctcctga gtagctggga
9061
       ctacaggtgc atgccaccac gcccagctaa tttttttttg tacttttagt agagacaggt
       ttcaccatct cattcagggt ggtctcaaac tcctgacctc aagagatctg ctccacccac
9121
9181
       ccccaagtct cccqaaqtqc tqqqattaca qqcqaqaqcc accqtacccq qccttcttta
9241
       aattatttaa aagttgacag gtggccaggt gtggtggctc tcacctataa tctcccagca
9301
       ctttgggagg ctgaggcggg tggatcaaga gatcgagacc atcctggcca acatggtgaa
9361
       acccaactct actaaaaaca caaaaattag ccgggtgtgg tggcacccgc ctgtagtccc
9421
       agctactcag gaggctgagg caggagaatc gcttgaaccc gggaggtgga ggttgcagtg
9481
       agccaagatt gtgccactgc actccagcct ggcaacagtg cgagactcca tcttaaaaaa
9541
       aaaaaaaaa aattgacagg cataaatgta tttatggtac attgctcaga caactttaat
9601
       ataaacaact tacagagaaa attgagtctt ttgggtaggt gacttgcctg agctgacttt
9661
       gtgataggtt ttttctgttt tttttgtttt tgaaatagag tctcactctg tcatgcaggc
9721
       tggagtgcag tggccccatc ttggctcact gcaatctctg cctcctgggt tcaaggggtc
9781
       ttcctgccac agcctcccca ggtgctggga ctataggtgc ccaccactat gcctggctaa
9841
       cttttgtgtt tttagtacag atggggtttc aacagggtag ccaggttggt ctagaactcc
9901
       tgacctcaag tgatccacct acctcggtct cctaaagtgc tgggattaca gctgtgaacc
9961
       accgcaccta gcctgtgatc agtttcagat cagccttgct tactccacat tccctcttat
10021
       cttcctggta gcatttttgt tttttcttga gaaagagttt tgcccttgtc gcccaggcta
10081
       gagtgcaatg gtgtgatctc ggctcgccac aacctccacc tcccaggttc aagtgattct
10141
       gcctcagcct cccgagtagc tgggatcata ggcgcccacc accacatctg gctaattttt
10201
       gcatttgtta gttttatttt tagtagacag ggtttcacca tgttgggcag gctggtcttg
10261
       aactectgae etcaggtgat ceaeceaett eggeeteeca aagtgetggg attacaggea
10321
       tgagccaccg tacctagccc acattgactt ttgatacagc aagtatttct tgctatggct
10381
       ctgtataata gaggtgagta acttggttga aggaattgtt tgccctgttc atctctctag
10441
       acacggccaa tgtcattcct ggcacacaat ctttttttt cttgagatgg agtctcactc
10501
       tgttgcccag actggagtgc agtggtgcaa tcttggccca ctgcaacctc tgctacccag
10561
       gttcaagcga ttctcctgcc tcagcctccc aaatagctgg gagtacaggt gtgtgccacc
10621
       acgcccagct aattittigt attitagtag agacagggtt tcaccgtgtt agtcaggatg
10681
       gtctggatct cctaacctcg tgatccgtcc gcctcagcct cccaaagtgc tgggatgaca
10741
       ggcgtgagcc actgtgccca gcctagcaca caatcttgac aaagaatttc ggtgcgactt
10801
       ggggtactgt ggtgcctgct ctatcatcat gcttcagcag gaaatgtggg tgaatagtgc
10861
       10921
       tctgtcaccc aagctggagt gcagtggcgc aatctcggct cactgcaagc tccatctccc
10981
       gggttcacgc cattctgcct cagcctcccc agtagctggg actacaggcg cccgccacac
11041
       gcccggctaa ttttttgtat ttgtagtaga gacagggttt caccgtgtta gccaggatgg
11101
       tctcqatctc ctqaccttat qatccacccq ccttqqcctc ccaaaqtqct qqqattacaq
11161
       gcgtgagcca ccgcgcccag ccgcgggtaa agaaatttat gaagacaatc gtaggtaaag
11221
       gaaggcagat ttattggaga aagtaggaaa agacattggc agagagaccc cagcgggcag
11281
       gttgtcatga gtagctcact gccaggagac caaagcttcc tgcagatttt atagaatagg
11341
       gcttgggctg attgataatg tcaacagggg gtttaacttg cggtcttctt tcagcagaag
```

FIGURE 1-D

11401	tgtttgataa	actgaggcgt	ttcatggcaa	acagggagtt	tgtgagctct	gtgtgtgatc
11461	tggccaggaa	ggccaaacat	cttgagccat	atctcctqqa	ccataaaagc	agacctggcc
11521		gttcatgcct				
			-			
11581		cagttttaga				
11641	atacaaaaat	tagcctagac	gcagtggcac	atgcctgtaa	ttccagttac	ttgggaagct
11701	qaqqcaqqaq	aatcgcttga	acccgggagg	cggaggttgc	agtgagctga	gattgcgcca
11761		gcctgggcaa				
	_			_	_	
11821	_	ttgtatgccc				
11881	tggagtcttg	ctctgttgcc	cagggtggag	tgcagtagtg	cgatctctta	ctacaacctc
11941	catctcccag	gttcaagcaa	ttctcgagcc	tcttaacctc	ccaagtagct	gagattacag
12001		ccacgcctgg				
			_	-		
12061		gtctcgaact				
12121	ttctgggatt	ataggcatga	gccaccacac	ctggccggaa	aacacatttg	tagcttattt
12181	gctttatctg	atcccgtgcc	cccctcccc	cccgccccat	cagcctgcct	ccttttctct
12241		ccacaggaaa				
12301		acagaaacga				
12361		ggtctgtacc				
12421	taaacttgaa	gtcctcttaa	ctttcctatg	taacacaaag	catttattta	tgtatgtatg
12481	tatcgagacg	gagttttgct	cttqttqccc	aggetggagt	accataacat	gatctcgact
12541		tecgeetece				
12601						
		gcatgcgcca			_	
12661	ttcttcatgt	tggtcaggct	ggtgttgaac	tcccaatgtc	aggtgatctg	cctgcctcga
12721	cctcccaaag	ggctgggatt	acaggcatga	gccactgtgc	ccggccaaca	caaggcattt
12781	tattattta	gttttcccta	tagataacta	attocatcct	ctctcccttc	cctcctcacc
12841		acaaagacaa				
12901						
		ggcctggaga				
12961		tcagcaaccc				
13021	tatggtcctg	caggccttgg	gaaaaccacg	ctggcccaga	aactaatgct	agactgggca
13081	gaggacaacc	tcatccacaa	attcaaatat	gcgttctacc	tcagctgcag	ggagctcagc
13141		cgtgcagttt				
13201		acatcctagc				
13261		ccgcacctgg				
13321	aagccggtgc	ccgtcctcct	ggggagtttg	ctgaacaggg	tgatgttacc	caaggccgcc
13381	ctgctggtca	ccacgcggcc	cagggccctg	agggacctcc	ggatcctggc	ggaggagccg
13441	atctacataa	gggtggaggg	cttcctggag	gaggacagga	gggcctattt	cctgagacac
13501		aggaccaagc				
13561						
		gctcggcccc			-	
13621		gggaggaccc		-		
13681	ttcctctgca	gccggttccc	gcagggcgca	cagctgcggg	gcgcgctgcg	gacgctgagc
13741	ctcctggccg	cgcagggcct	gtgggcgcag	acgtccgtgc	ttcaccgaga	ggaYctggaa
13801	aggctcgggg	tgcaggagtc	cgacctccgt	ctattcctaa	acggagacat	cctccaccaa
13861		ccaaaggctg				
					-	_
13921		acaccctgga				
13981	attggggacg	tacagaagct	gctttccgga	gtagaaagac	tcaggaaccc	cgacctgatc
14041	caagcaggct	actactcctt	tggcctcgct	aacgagaaga	gagccaagga	gttggaggcc
14101	acttttggct	gccggatgtc	accggacatc	aaacaggaat	tgctgcgatg	cgacataagt
14161		gacattcaac				
14221						
		aggagctggt				
14281		tagacgttgt	_			
14341	aaaatgtcac	tgcaggtaat	aaaggagaat	ctcccggaga	atgtcactgc	gtctgaatca
14401	gacgccgagg	ttgagaggtg	agaaccgttt	cactctacca	gtcgttccat	ctttagcctc
14461		cccttaggaa				
14521		gttggactct				
14581		gcgcagtggc				
14641	gtgattcttc	tgcctcagcc	tcctgagtag	ctgggactac	aggcgcctgc	caccttgccc
14701		tatattttca				
14761		gacctcaggt				
14821		gcccggccca				
14881		agtggtgaaa				
14941		cctgggatga				-
15001	tgggggtttt	tttttgtgtt	tttttttt	tttttttt	tggaaagaca	aaatctcact
15061′					ttacaggcat	
						gagetaccac
15121						
15121 15181	acgccctgcc	tgaatatttc agacggagtt	ttattgatat	gtatagatat	gtatattccc	aatcttttt

FIGURE 1-E

```
ggctcactgc aacctccgcc ccaccaggtt caatgattct cctgcctcag cctcatgagt
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 15301
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 15361
        ggggtttcac catgttggcc aggcaggtct cgaactcccg acctcaggtg atccacccgc
        ctcagcctca caaagtgcta ggattatagg cgtgagtcac cgtgcccggt ctatattctc
 15421
 15481
        tatcttttat caatgatgtg cttagcattt taacttattt ttaccctcta ttggatttt
 15541
        gtctaagaag aataggttct ttctcctgtg atgcttcttg ggtgttgagt tgtctgatgg
 15601
        tggtgctaat aagtgattac atggtccagc tttcaattgt actcatttgt caggggtata
 15661
        tgcccagaga aaccctaaat acttcagccg tgatggacac acatttggtg taaccctttc
 15721
        ttctcttccc tatagatccc aggatgatca gcacatgctt cctttctgga cggacctttg
 15781
        ttccatattt ggatcaaata aggatctgat gggtctagca atcaatgata gctttctcag
 15841
        tqcctcccta qtaaqqatcc tqtqtqaaca aataqcctct qacacctqtc atctccagag
 15901
        agtggtgtaa gtagaaacta attcatgaac tcaaatcctt agggtatgaa aatggtacaa
 15961
        tgttaacatc ggagcaatat tcagattcct gtactagact cttaagtgct cgagacacag
 16021
        ggaattgaga gagtcctgtc cttaaattta ttttgtggga taatcgtata aagtaatttc
 16081
        taggggctgg gcatggtggt tcacacttgt aattccaaca cttcgggagg ccgaggcaga
 16141
        cagatcactt gaggtcagga gttcgagacc agcctggcca acgtgacaaa accctgcctc
 16201
        tactaaaaat acaaaaatta tccaggcqtq qtqqcagqca cctgtaatat cagctacttg
 16261
        qqaqqctqaq qcaqqaqaat tacttqaacc caqqaqqcqq aggttqcaqt gaaccaagat
 16321
        cctgccactg gactccagtc tgagtgacag agcgaRactg cgtctcaaaa aaaaaaaaaa
 16381
        aaaaaaagaa aaagaaaaaa agggccgggc acaatggctc acgcctgtag tcccagcact
 16441
        ttgggggccc aaggtggggg gatcacttga ggtcaggagt tcaagaccag cctggccaag
 16501
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 18901
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 18961
         attaaagatt tgggtcacta atttctttct ttttttctca agatatagtc ttgctctgtc
 19021
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FIGURE 1-F

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19261
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19321
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19381
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19441
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19561
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19741
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19801
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22801
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FIGURE 1-G

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23101
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26521
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26581
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26701
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FIGURE 1-H

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29521
29581
       taatccgttt aactctgagt ggacacagca catgtttcag agagcacggg gttgggggta
29641
       aggtcacaga tcaacaggat cccaaggcag aagaattttt cttagtacag aacaaaatgg
       ggggctgacc cccccacctc cctcccggac agggcggctg gccggttaga ggggctcctc
29701
29761
       acttcccatt aggggcggcc gggcagaggc gccctcacc tcccggacag ggcggctggc
29821
       tgggcggggg gctgacccc ccacctcccc gcccggccag agttttactc ttgttgtcca
29881
       gcctggagcg caatggcgct atctcggctt actgcaacct ccgcctcccg ggttcaagag
29941
       gttctcctcc ctcagcctcc caagtagctg ggactacagg catgtgccac cacacctggc
30001
       taatettgta tttttaatag agacagggtt tetecatatt ggteaggetg gtetegaact
30061
       cctgacttca ggtgacccgc ctgcctcagc ctcccaaagt gctaagatta caggcgtgag
30121
       ccaccatgcc tggcctgcat ctcctctgtt taactggtac tccggggtcc actgagtaga
30181
       agttgccaaa gtgggtgata gagcgggtaa gcaggtatta gagctatagc ccagctgtac
30241
       tcagcaattc cattttctgt gtatgataat caacaagcat ctcaaactgc acaatggcta
30301
       tataccatta caaggttaac ctgatgttat gtttttctct atcagatcaa catggttgag
30361
       aataagagga atgaaaaaaa ggattaaaaa gagaaatgaa agtctttaat attacatttt
       attatttact tcatttattt tttagacaaa aatctcactc tattgctcag gctggagtgc
30421
       aggggcccga tctcagctca ctgtaacctc cgcctcccag gttcaagtga ttctcctgtg
30481
30541
       tcagcttcct gagtagctgg gattataggg atgcaccatc acacccaact aacttttata
```

FIGURE 1-I

```
30601
       tttttagtag agatggactt tcaccatctt gcctaggctg gtctcaaact cctgacctca
30661
       agtgatctgc ccacctcact ctcccaaagt gctggcatta caggcatgac ccaccacatc
30721
       tggcctcatt ttatatttaa aaataaaaaa taagcaaatc aagccaggta cagtttaggc
30781
       aacatggtaa aaccccaact ctactaaaaa tacaaaaatt agctgagcat ggtggcaggt
30841
       gcctgtagtc ccagctactc gggaggcaga ggataggatg gcttgaaccc aagaggcaca
30901
       ggttgcagtg agctgagatg gtaccactgc actccagctt gggcaacaga gagactgtct
30961
       31021 \
       agtggcacga totoggotca otgcaageto ogcotocogg gttcacacca ttotoctgco
31081
       tcagcctcct gagtagctgg gactacaggc gtccgccacc acgcccqgct aattttttgt
31141
       atttttttag tagagacagg gtttcaccgt gttagccagg atggtcttga tctgctgacc
31201
       tcgtgatcca cccgcctcag cctcctaaag tgctgggaat tacaggcRtg agccatcacg
31261
       ccccacctga gactgtcttt taaaaaaaaaa aaaaaaaaat caatgtggaa cactcctttg
31321
       ccacctagaa taatcaggaa aggtgaccca tgccctgtgc ctccttaaca gactttcagg
31381
       tacttgggaa tttgaaacaa atctccttga tgcacaaagt aaccttttct tcccccattg
31441
       taccccaggt tgaaaatMga tgactttaat gatgaactca ataagctgct ggaagaaata
31501
       gaagaaaaaa acccacaact gattattgat actgagaaac atcatccctg ggMagaaagg
31561
       cottottoto atgacticat gatotgaato coccogagto attoattoto catgaagtoa
31621
       togattttcc aggtgtKggt gaactgcctg tgactcctct cctccccSgc ccctacccct
31681
       cagggataat gagttcattg ctgggctaga tgttttagcc atgattctgc ctctgtttta
31741
       tacctgcaca cRtccttatc tttgttacat atgaaatatc tgtatcacgg gtatattgag
31801
       agaaataaag gtgagagcat tcacaaatga agctgttact taataatggg ctttgacaag
31861
       ttagagaaaa gatatcttac tgggtagaac ctggggggtg ggggaagtga cagtgtttaa
31921
       31981
       tcttttcttt tttttttt tttttttag actgagtttc actctgttgc ccacgctgga
32041
       gtacactggc acgatctcag cttactacaa cctggcaggt tcaagcgatt ctcctgtctc
32101
       agcctcctga gtagctggga ttacaagcat cccccaccac acccggctaa atttttttgt
32161
       attittaata gagatgaggt ttcaccatgt tggccagtct ggtctcaaac tcctgacctc
32221
       aagtgatcca cccacctcag cctcccagag tgctgggatt acaggcatga gccactgtac
32281
       ccggcttttt ttttttctt tttcttttc ctcaagcatg agtgttgctc tgttgcccag
32341
       gctggaatac agcagcatga tgatagctca ctgcagcctc aagctcccag gttcaagcga
32401
       tectecagee teageeteet cagtagetgg gactacaggt geacaceace aaaceaggee
32461
       aatttttgtg ggattttttt tgaagacagg gtctcactat gttgcccagg ctgatctcaa
32521
       actcccaggc gcaagtaata ttcctqcctc agcctcccaa agtqctagga ttacaggtqt
32581
       gaaccactgt gcctagcctg tcttgttact tgttgacctg cgtggatcac tgcctgctga
32641
       gtattacttg ccagaggatt tctcctacca atctacaata ttttaggtgc ttcggtgtag
32701
       ctcatatatg accatgtcat tgctctgatt ttgcttttta aaaattctaa cttaaaatag
32761
       aatctcggcc aggcacggtg gctcacacct gtaatcccag cacttcggga ggctgaggtg
       ggtggatcac gaagtcagga gttggagacc aacctggcca acgtggtgaa accccgtctc
32821
32881
       tactaaaaat ataaaaaatt agccaggcat ggtggcacat gcctgtaatc ccagctactt
32941
       gggaggctga ggcaggagaa ttgcttaaac ccaggaggtg gatgttgcac tgtgctgaag
33001
       actgcactac tgcattccag cttgggcaac agagtgactc cttctccaaa aaaaaacaaa
33061
       atctcatggt atgcatagtt tttcactata gagtctccat tatttccttg tgatacagaa
33121
       ttccaaattc aacaaagcag cagtgcaagc tctacgctgt aaaaccacaa acaaaacgaa
33181
       ctgtactata aagacaacac tagttggcaa agttgcttct catggggaga ctttgttgct
33241
       gtctgtgttt actggatgag caaacaaatg gacggtaagg gggaaaaaga acagtacaaa
33301
       tttttattaa acactaatca tgttttttt tgtttgtttt gagacagttt cttcttgttg
33361
       cccaggctgg agtgcaatgg cacgattttg gctcactgca acctccgcct ccccgggttc
33421
       aagcgattct cttgcctcga cctactgagt agctgggatt ataggcatgt gccaccaagc
33481
       ctggctaatt ttgaattttt agcagagacg gggtttttcc atgttggtca ggctggtctc
33541
       gaactcccga cctcaggtga tccaccagcc ttggtctccc aaagtgctgg gattacaggt
       33601
33661
       tggtggcaga atcttgctct ttcacccagg ctggaatgca atggcacgat ctcgggtcac
33721
       tgcagcctcc acctcccag tttaagcagt tctcccatct cagcctccca tgtagctggg
33781
       accacaggtg tgcaccactg cacccaggta atttttgcat ttttggtaga gatagggttt
33841
       tgccacgttg tccagactgg tcttgaactc ctgagctcag gtgatctgcc caccttggcc
33901
       tccccaaatg ctgggattat aggcatgagc caccacacct ggtcaaaagt agttttaata
33961
       tttaaattta aaactaaaaa agttaatctc tcttcctact ttcatttctt catcaggggc
34021
       tattggttta ttcccaccga ctagatccaa gttctctgat actaccttta aaccactcca
34081
       tcactttcca gttccactgc atacagtgtg ggcttctgag gtttcctggt tcaaggtgtc
34141
       cttgttcaat gcggcatqqq tcattccctq aqcatttttt tttttttttq acagtctcqc
34201
       tecattgece ggtttggagt geagtggtgt gacetegget tactgeagee tetgeetee
34261
       aagttcaagc aattctgcct caggctcccg gataattttt gcatttttag tagagacagg
34321
       gtttcaccgc gctggccagg ctggtctcga acccctaacc tcaagcgatc tgcctgcctc
34381
       ggtctcccaa agtgctggga ttacagacat aagctaccgt gcccggcctc cagagcatct
```

FIGURE 1-J

34441	ttattctcag	tttcagcggg	aagaagggg	aaggttggta	aaaagagagg	cacaaagttt
34501		ttgcgtgaag				
34561		ctactcgttg				
34621		cccctagat		-		
34681	-	tagaaaatat	_	_		_
		_	-			-
34741		catctttaga				
34801	_	aggggcccat	-	-		
34861		ttcatgtagc				
34921		cctgtggcac			-	
34981	acaagtactg	ctctccctat	acctgtgacc	actcgcctcc	gcccatcact	gaattctgaa
35041	aatgtggcct	caggctcaca	gcagcattag	cacttgcttg	ctctggatct	catcacattg
35101	atgatcaaga	acaaagtatt	cactgggttc	tctgctaagg	atacaaaaaa	aaccattcca
35161	caattccacg	gccatgtttg	cacccaggaa	ccacgagggć	tgggttagcc	cagatggtgg
35221	gcttgggaaa	tgttcctgga	gcaaaaaaaa	gagccagaag	tcatgagagc	ctgaccccct
35281	ccccaacqc	gcacacacac	acaccactct	ctacctccaa	qcctcatttt	caggettete
35341		tcactcccat				
35401		gaactctctc				
35461		gagggtcttg				
35521		ccatggtaac			-	
35581		atgggctggg				
35641		ggatcacatg				
35701						
35761	-	actaaaaata				-
		gaggctgagg				
35821		gcaccattgc	_		_	
35881		cgtctgtgat				
35941		ggaggttgca				
36001		acagagctga				
36061		ctacgagaga				-
36121		tttttaagga				
36181		agggatgaaa		_	_	
36241		aaagataaga		-		
36301		gtctgcaagt				
36361		ccagctgcat	-			
36421		gccaatctag				
36481	catctttgtt	taaactataa	gtttctccca	aagttcagcc	tatgcccagg	aatgaaaaag
36541	gacagcttgg	aggttagaag	caaaatggag	tcagttaaat	ctctttcact	gtctcagtca
36601	taattttgga	aaggtggttt	caagctggca	caactgcact	ccaccctagg	agacagagcg
36661	agaccctgtc	aaaaaaaaa	aaaaaaaca	agaagtgaag	tcaagatagg	aggtaaattc
36721	ggaagacagg	aagtggtggt	agaagacaag	aagtgaagtc	atacaggaag	taaagtcaga
36781	agacaggaag	tgaagtaaga	agacaggaag	tggttgtaga	agacaggaag	tgaggtcata
36841	caggaagtaa	aatcagaaga	caggaagtga	cgtcaaacca	ggatttgcag	tcggaggcag
36901	gcaagaagtg	aaatcagaag	acgggaagtg	gctgagggga	acgtcttttc	tctctcctgc
36961	tcagcccgaa	gtgaacaggt	agcatcaggt	gtgccatttc	agtgactggg	cacageceag
37021	gcacccacat	ctctctgcag	cgcctattct	tggaacacca	gagacctcta	cactattttc
37081	tgttgctttt	ttccttcatt	ttcagagatg	agatcctgga	ttgaatgact	actatggaaa
37141		aaggtaagtc				
37201		cgtctagcac		_		
37261		gatattcgta				
37321		cgattttta				
37381		aagtcttctc				
37441		catacttcta				
37501		gcacctttca				
37561		gcttttaatc				
37621		aggggtgggg				
37681		ttgttctctg				-
37741						
37801		ggatgagcca attttcgctt				
37861		_				
		tgtacgtgca				
37921		tgtcttctta				
37981		aaatttttgg				
38041		ggattagggg				
38101 38161	agattttgtg	gtaaggggtg	acattgtggg			
Jaiac	++-+			a + ~ a a + +		~~~+~~~-
38221		tggcctggat caggtattaa				

FIGURE 1-K

38281	antacctaan	gaggttcagc	atageettge	caccaaanat	tatttattta	ttttaagagt
38341		ggtatgggga				
38401	gtgtaaactg	gcagtgtaaa	caagagcagg	gcatgtgtga	gtagttgaga	acggtgaata
38461	ggagtatgac	tagacagaag	atagtaggga	tgacaagttt	tttggggcac	aatctaagtt
38521	_	ctggaatgag				
38581		atcttgtagc				
38641		ccagtccttt				
38701	gaccattagt	ctgtcactga	atactaagag	cctgaaaaaa	tgcttggctg	atttgactaa
38761	taaaggctgg	tctgttagca	gactgtatag	aggtgggaag	gctgaactga	ggaattttgt
38821	ctgacagaag	ggaatgacaa	ggctaaactg	aagaattatg	tctgacagaa	gggaagaaat
38881		gccttctcag				
38941						
		aagaggtatt				
39001	gccagtcctg	ggcgggggca	aatccttgag	cttgatgtgt	agggaaggga	gggggcctga
39061	ataatccatg	aggagtagta	gaatagctga	tgcaacactg	agaagtgatt	tctttgagga
39121	tagatttcca	caatggaaag	gaaatgagag	gttctaagag	gctggctagt	ggcttgtacc
39181	atagcatagc	ctgcctttgc	taatataa	cgattaggcc	tagtagaacc	gccatcaata
39241		gatcagggtg		-		-
39301						
		tcagagagat				
39361	gaggccagat	tgaagtccgg	gccaggaaca	atggtaattg	tgggacttaa	caaagagtga
39421	gtacagctga	aggagccagg	gagcagaaag	tatatgcatc	aggtgtgagt	aagaaaatag
39481	attttggaaa	ttatgagagc	tgtagagagt	gagttgagca	tagtttgtga	ttttgagggc
39541		attaaagcag				
39601		agttgtttgg				
39661		gcgctaacca				
39721		gagatcagtc	-			
39781	attatgccga	gataggtaac	agatgaggat	gaactttggg	cttgactgaa	gtaatggggg
39841	ctgtctgtga	aaccttgcag	cagtacagcc	caggtaattt	gctgagccta	atgggtgtca
39901		aagtgaaagc				
39961		taagatcaag				
40021	_	-				
		ggttgggcac				
40081	cctgaactaa	tctgtaagac	ttttccggtt	tttggacagg	taaaatgggg	gaattgtaag
40141	gagagtttat	aggttttaga	agcccatgct	atagcaggcg	agtgataaca	ggctttaatc
40201	cttttaaagt	gtgctgtggg	atgggatatt	ggcattgagc	agggtaaggg	tgattaggtt
40261		ggtaacgggt				
40321		aaggtggggg				_
40381						
		aatgagatgc				
40441		tcggcctaat				_
40501		ttgtccaagt				
40561	ggccgtcaat	acccacaaca	gttatggagg	caagagaaac	aggcccttga	aaagaaggta
40621		ggtagcctcc				
40681		ctcggcatcc				
40741		cgctaagccg				
	-					
40801		ctgccaggtg				
40861	ggacacggct	taggaggaat	cctgggctgc	aggcattcct	tggcctggtg	gtcagatttc
40921	tggcacttgt	agcaagctcc	tgggggagga	ggttctggag	gaacgcctgg	ccgctgcggt
40981	tcagttccct	tcttgtgtgc	tggagatgtg	gctggggttt	gtctcacagt	ggaggcaagg
41041 .		tttttctatt				
41101		ggccggaatt				
41161		tgtattaaga		-		
41221	-	ggttgctggc				
41281	aaaagagcct	aaacactatc	tgatttggga	taaagaaaaa	ggagcattaa	ccttgactat
41341	gcctttagct	ccagccacct	ttctaagagt	aaattgctgg	gcaggtggaa	gagggctagt
41401	cactgaacga	aactgtaagc	tggaccaggt	gtggggaggg	gaggtgataa	aaagataata
41461		gcggaggctg				
41521						
		ggtctgtaga				
41581		caggcaggag				
41641		gggactgatg	-			
41701	gcccatttta	cgacaagaat	tatttagatc	ttgcaggatg	gaaaaattga	aagtgctgtt
41761		ttggaactgc				
41821		ttaggtttta	-			
41881						
		ggagagaagg				
41941		agaaaagaga				
42001		gcgggaaagg				
42061	gaggttgggg	catggaaata	agggatcagg	gtgcagagat	acgaggttgg	ggtacttgcc
				_		

FIGURE 1-L

42121	cctctagaaa	agcgggactt	gccgctaaga	gtgaaggaga	aggggttggg	ggtttcttgc
42181		ggtggagaag				
42241		aagtgggact				
42301		ctctgaagcg				
42361		ggctgccttc				gtccacagat
42421		tcctttgtct				
42481		gtggaaagga				
42541		gtcgcttacc				
42601		aggtcgtagg				
42661						
42721		ggaggtcccc				gcgtccatgt
42721		ccaaacaggc				
		ccgacaagag				
42841		aaaggaaaat				
42901		tgctctgtag				
42961		gtcatcagtt				
43021		taaggcagga	_			
43081		gcttgggctc		_		_
43141		tgtacaaaat			-	-
43201		cttttagctg				
43261		tgaatgagct				
43321		gcgttgttct				
43381		cagtatcaca				
43441		gtggcgcaat				
43501		tgccaccacg				
43561		tgagctggtc				
43621		gattacaggc				
43681		gcagccgaga				
43741		cccctaaagt	_			, ,, ,,,
43801		tcacccaggt				
43861		ctcaggtgat				
43921		ccagctaatt				
43981		gtctcgaact				
44041	gggattacag	gtgtgagcca	ctgtgcctag	gctatactgg	tctttttaaa	atctacttag
44101	tttacttgac	ctctaaaatt	atttttcctc	tgtYttctga	tagcatctca	gtatgatttt
44161	ccactatgtt	aagacgagga	attgacccat	tcttacattt	ggaggcttct	ctaagcaact
44221	ttcccattcc	cccttcaccc	aagctgtgtg	ctcactagcc	ctgattcaca	gccgtcgtcc
44281	tggaacttct	tggtgccatc	cttctgtctt	ttcccaagtg	actcacctMc	ctcaacctcc
44341		ggattacagg				
44401	acaatttta	tcttcttat	tttaagtaga	gatggggtct	cactatgttg	cccaggctgg
44461	tcttgaactc	ctgggctcaa	gcgatcctcc	tgccttggcc	tcccacagtg	ctaggattac
44521		cactgcactt				
44581	aatgcctaaa	cgctataata	aatatagaac	tttaccttga	gaagacctaa	catttccttc
44641	agaaagtaaa	tatgagaggg	gtggagacgg	tgcattatct	tatttttatg	attttaaaaa
44701	tgtatacaga	attgtacata	tttatggggt	ggacagcaat	attgcagtac	atgtatacaa
44761	cgtgctatga	tcaaatcagg	gtaattgaca	tattcatccc	tgtattttt	gagacaaRgt
44821	caggcttcgt	cacccgagct	agagtgcagt	ggtgtgatct	cagctcactg	caacctctgc
44881	ctcccaggct	caagccattc	tcccacctca	gcccccYgag	ttgctgggag	tatagggatg
44941	caccaccaca	cctggctaat	ttttgtgttt	ttttgttttg	ttggtagaga	tgaggtttca
45001	ccatgttgca	caggctgatc	ttgttttcta	atgtgaaggg	aagcgggcaa	cgtgctagtt
45061		gaaaatgaat				
45121	aaaggagatt	tgttagaccg	cagtgggaga	tggagtgagg	gtgagagttt	ctggggaaaa
45181		gcacagaggg				
45241	cagagtcaac	cctgagagct	gggaacctta	gagatccgtc	tggagcccat	attagagagg
45301		aggccagtat				
45361		gggtctccac				
45421		gacagacaga				
45481		tcgtttccac				
45541		gagtcgcctc		-	_	
45601		catgaacata				
45661		ttccgggtcW				
45721		tgccgcaggc				
45781		aggatcacag				
45841		ggacctggag				
45901		ccaagccaca				
		- Jung Court				Lactagetag

FIGURE 1-M

```
45961
       gggatgccgc tcactttcct ggagggtccc tcccttcccg agtaggggtc agggccagat
46021
       gaccccaatt ctctaagtag cacctctccc tcctgtgctc tcacagggct ctgagacaac
46081
       tcctccccag acacagatgc tgcctcgtta tctgatgcat tgcaaaaagag aggacagtta
46141
       taaggggtgg ggaagagatg gaatctctct ttctctgacc ctttttaaaa tctcaacctt
46201
       cccacctgat cttaatgccc aattctgaac cccatacgct gatattctgc ctttactcta
46261
       cacactggaa cccaagatct gagagctgca gcccctgcgt agacaaagga gttggctttg
46321
       gtgaagagac gggtgagaag gaagggggtc tggagaggat gacttactca ccagctggag
46381
       agtctqactc ctttggactg qYggtgatac tcctagaagt ctctgggaac caaacaaagg
46441
       ctaagtgtga aatgaaacca tattcccgcc ccctgtcact gtgcctactc cgaacacaca
       cacacatggK gaggcacaat tccacagcat ttaagaaaag catgggccgg gcaYggtgcc
46501
46561
       tcatgcctat aatcccagca ctttgggagg ctgaggtagg aggctggctt gagtccagga
46621
       gttcaagacc aacctgagca acatagaaaa accctatctc tacaaaaaaa tacaaaaatt
46681
       agccaggcgt ggtggcacgt gccagtaatc ccagctactc agtggaggct gaggcaggaa
46741
       gatcacctga gccctgggag gttgaggctg cagtgagcca ggattgtacc actgcactct
46801
       agcctgggaa acagagcgag acMctgtcca aaaaaaaaaa agcaagaact gtagagtcag
       qctqtcctcc agatttgaac cccaactcta tcacctatta gatqtcaqtt atctggcaag
46861
46921
       tgactcagca tctgtgagcc agttccccat gtgtccaata aaattaacaa gatcccttat
46981
       aggttgatgt gaaagtcaag ataataataa tggtagaaat ataaagcacc gtgcttgaca
47041
       47101
       gtctcccagg ctggagtgca gtggcccgat gtcggctcac ttcaacctcc gcctcctggg
       ctcaagcgat tctcctgcct cagcctcccg agtagctggg actacaggcg tccgccacca
47161
47221
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47281
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47401
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47461
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47641
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47761
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47941
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48001
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48061
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48121
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48541
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48601
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48661
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48841
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48901
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49021
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49081
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49381
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49561
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49621
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49681
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49741
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FIGURE 1-N

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49801
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49921
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49981
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       accetecttg geeteteaaa gtgetgggat taeaggetge geetggeeac agactgtttt
50041
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50281
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50401
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50461
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50521
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50581
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50641
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51061
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51481
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52981
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53461
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53521
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53581
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FIGURE 1-0

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53641
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53761
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53821
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       ataagaccac acatctacaa ccatctgatc ttcaacaaac ctgacaaaaa caagcaatgg
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53941
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54001
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54061
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54481
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56401
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56581
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```

FIGURE 1-P

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57481
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57601
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58561
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60061
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60121
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60241
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60301
       actcctgacc tcaggtgatc cgtccacctc ggcctcccaa agtgctggca ttacaggcgt
60361
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60421
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       tagcgagaag agagtatttg agtctgaccc tgaaagaagt aatgaggcag ccaggctggt
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60541
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60601
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60661
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60721
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60901
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60961
       ggctaaagtg agctatgatc atgcctgtga atacagcgag tgtactaaag cctgggcaac
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61081
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61141
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61201
       ttattttttt tagtagagac ggggtttcac catgttggcc aggctggtct caaactcctg
61261
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```

FIGURE 1-Q

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61321
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61381
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       cggggtctgg gaacagaaat aggatattag tggaaagact ggtgaaattc aaatagcctg
61441
61501
       qaqtttactt qatataatat agttqtqtct atqqttaqtt ttttqtttqt tttttqatac
61561
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61621
       teggeeteee tggeteaage gateeteetg ceteageete etgagtaget gggaetatag
61681
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61741
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61861
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61981
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62281
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62461
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62581
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62641
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63361
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65041
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65101
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FIGURE 1-R

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       65281
65341
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65401
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65461
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65521
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65581
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65761
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65821
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66121
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66241
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66301
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66661
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67741
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67801
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67861
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67981
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68101
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68461
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68521
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68881
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```

FIGURE 1-S

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69001
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72721
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72781
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```

FIGURE 1-T

```
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       ctccqqtKta tcaqqqaccc tgtcagttgc catcgcacat gtatatgggg ccagccctg
72961
73021
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73081
       tcaagcagtt cttctgcctc agcctcccta atagctggga ttacaggcgt gcaccatcac
73141
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73201
       qtcctacqca cctattcqqa qaaccaaaqq ctttqaqqtt atcctcqqcc cacccatctq
       atgggagtgt ttctcaaact tgcttttccg tgatctccca gtaagaaata cctactacac
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73321
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73441
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73561
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73621
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73681
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73801
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73861
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74221
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74341
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76081
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76561
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76621
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FIGURE 1-U

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76861
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77521
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77581
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79921
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79981
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80221
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80461
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```

FIGURE 1-V

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	-					
80641	ttggagctgt	ctctttttt	tttttcattt	ttccttttt	aattttagat	ttttcagaca
80701	taatctcact	atattaccca	ggctggtctc	aaactcttga	actcaagcaa	tectectact
80761	ttggcctccc	agagtgctgc	aatttcactg	ccccagect	attttttt	rrrgggggg
80821	gggagatgga	gtttcactct	tgtcacccag	actagaatac	aatggtgcga	tcttggctca
80881			gttcaaacaa			
	_		-	-	-	
80941	actacaggca	tccaccacca	caccgggtta	attttttgta	tctttagtag	agacggggct
81001	tcaccatatt	aaccaaacta	gtctcacact	cctgacctcg	tgatccacct	acctcagect
			-		_	_
81061	cccaaagtgc	tgggactgca	ggcgtgagcc	accacactca	gtctacttgg	cctattttt
81121	atatttcttt	gagacagggt	ctccctctga	cacctgggct	ggagtacagt	ggcgcaatca
81181			ctcccaggct			
81241	agctggggcc	acaggcatgc	gccaccatgc	ccagctagca	cgtctgtttc	tgtgcgcaaa
81301	tctccccttt	tcataaggac	accagtcact	ggattagggc	ccaccctaat	gacctcattt
81361			acacccacct			-
81421	gttcaggatc	ccaacctatc	cttgggggtg	gaggacacaa	tggaattcat	aatgctcccg
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81541						
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			_	-		
81721			caactgtata			_
81781	cctattactg	ggcactggaa	atacagggtg	gacagcacag	ccgaggcccc	gtccgtgtgg
81841			tgagagccac			
				-		
81901	gagctgcgtg	gaagctgaca	ggaggcccct	ctcaggaggt	gacgcagaaa	ctgggaccgg
81961	gaaaatgagg	cagggcccac	gtgcggagac	ccagggaagg	gggatgcagg	cagcaggcgc
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82081	gtgccgccag	cttctggtgt	tttgttttgg	ttttttttct	tttttttt	gagatgaagt
82141	ctcactctqc	cacccagget	ggagtgcagt	aatataatct	taacccataa	cccactgcaa
82201			gcgattctgc			
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82321	cttggtcagg	ctggtcttga	attcttcacc	tegtgateca	cccacctcta	cctcccaaag
						-
82381			gccaccgcgc			_
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						agetgaacea
						agctgaacca
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FIGURE 1-W

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86161			cccataacaa			
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86341		_	tctaaaaaca			
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87181	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , ,	aggcagcaac			, , ,
87241			cttgcttcat			
87301			acatggccag			
87361			gggaagccaa			
87421			cctttgctgc			
87481			aaaacccagg	-	-	
87541			acatgaaaac			
87601			caaaagccaa	_		
87661		-	tggtccatcc		_	
87721			tgctacagca			
87781			gaccacacag		-	
87841	-		aacgcccaga	-	-	_
87901			ggggtgggga			
87961			acagatgttc			
88021			cactgaattg			
88081			gcaagaggat			
88141			acccaggctg			

FIGURE 1-X

```
88201
       aacctccacc tcctgggttc aagcaattct cctgcctcag cctcccgagt agctgggatt
88261
       acaggcacct accacaacta gctaattttt tatttttta tttttagtag agacagcggt
88321
       ttcaccatgt tagccaagct agtcttgaac ttctgacctc aggtgatcca ccccgcgqcc
88381
       tcccaaagta ctgggattac aaataagcca caatgcccag cctccaattt tttttgttgt
88441
       ggtaaaatac aaatcactta aaatttatca tcttaacccc cttttctttt tgtttattat
       tattttttt tttttgagtc agtctcactc tgctgccgcg gctggagtgc tggcgccatc
88501
88561
       acageteatt cageettgaa eteetagget caagtgaeet gggaetatag gtaceaeetg
88621
       tgccagcatg cctggctaac tctggtagag atgggggtgt tgctatggtg tccaggctgg
88681
       totggaacco otggootcaa gtgatootco tgootcagoo tocaaaagtg otggaattat
88741
       agatgtgagc caccgagacc cgccctctta gccattttta agtgtccagt tcattggtat
88801
       taaaaacatt tatggctggg ccgggcatgg tggctcacac ctgtaatccc agcactttgg
88861
       gagaccaagg caggtggatc acctgaggtc aggagttcaa gaccagcctg qccaacacat
88921
       tacaaactta gctgggtgtg gtgttgcatg cctgtaatcc cagctactcg ggtggctgag
       gcaggagaat tgcttgaacc cgggaggcga aggttgcagt gagccaagat catgccactg
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89041
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       89221
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89341
       89401
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89461
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89521
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89581
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90241
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90301
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90661
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90721
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90781
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90961
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       agtaccttcc cttgaactta attatgtcat agattctttt gctcacatgg tttttgctga
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91261
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91381
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91441
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91741
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91861
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91921
       attetectge ettageetee tgagtggetg ggattaeagg caeatgeeae caeacetgge
91981
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FIGURE 1-Y

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92161	gctccctctt	ataaggaccc	tataagacta	caaggcagga	ccggcacagt	gcctcacacc
92221	tgtaatccca	gcactttggg	aggccaagac	aggaggatca	cttgaggtca	ggagttcgag
92281	accagccatg	gccaacatgc	tgacacccca	tctctactaa	aaatacaaaa	attagcaggg
92341	cttggtggtg	cacgcctgta	gagtcagcta	ctcgggaggc	tgaagtggga	ggaccacctg
92401	agcccaggga	gggtgaggct	gcagtgagct	gtgacagcat	gactgcactc	cagcctgggt
92461	gacagagaga	ccctgtctcc	aaaaaaaaa		tgataatcat	
92521	acttggccgg	gcacggtggc	tcacgcctgt	aaccccagca	ctttgggagg	ccaaggtggc
92581	cagatcccct	ttggtcggga	gctcaagacc	agcctgacca	acatggagaa	acctcgtctc
92641	tactaaaaat	acaaaattag	acaggcgtgg		ctgtaatccc	
92701	gaggctgagg	ccggacaatc	gcttgaaccc	gggaggtgga	ggttgtggtg	agccgaggtc
92761	gtgccattgc	actccagcct	gggcaacaac	agcgaaactc	tgtctcaaaa	aaaaaaaga
92821	tgcttcactt	aacacatcag	cgagaacctc	tgacacgtga	ggtaatgtcg	tcacaccttc
92881	cgaggattag	gacgtggacc	cctctacgga	gtcacgactc	tgcccaccac	acccatgtcc
92941	cacagaggct	aacRctggca	acaagatagt	gtccagcaac	aggaggctga	gcaggtaaac
93001	agcactgcac	ccacaggaga	gaagggcacc	atgcaataca	gtggccacca	gccacagagg
93061	ctaatttta	agaaagttta	aattaagtag	gctgggcgag	gtggctcacg	tctgtaatcc
93121	cagcactttg	gaggccgagg	caggcggatc	acctgagggc	aggtgtttga	gaccagcctg
93181	gccaacatgg	caaaaccccg	tctctgcgaa	aaatacaaaa	attagccggg	cgtggtggcg
93241	cacgtgtgat	ctcagctcct	ggggacgcca	aggtgggagg	atcacctgag	cccaggaggt
93301	caaggctgca	gtgagccaag	atcgcgccac	tgcactccag	cctgggcgac	agagccagat
93361	tctgccttta	aaaataaacg	aacaaataaa	taatacaaaa	caacaaaata	aagagtttaa
93421	aagtctggaa	ggaaagcaac	atttacaagg	gcccaggctc	gcccttccct	ccgagtgacc
93481	ttgggccggt	gacctggccg	gccagagcgc	aggtttgccc	cactccgggc	gggcactgcg
93541	ggtcgggagc	tacggggcct	ggacccgggt	gcgaggggcg	ggggtctccg	ccgccttccc
93601	ggcccctgcg	ctgggggccc	gccttgaccg	cgcacgcggg	gctagaatgt	actcacttga
93661	gcagcacggc	ggcgcctgct	accgtgccca	gcgccgacag	cggcagcagg	tagcggctca
93721	tgccgggccg	gggacaggcg	tcaggcgtca	ggggtcggcg	cggagcttgc	tgcacaccag
93781	ccgcctgggt	agctccgagg	aagagcgcgc	gacgcagcca	caggcgagcg	gaggcgcagg
93841	cgcggctggg	cccgcgtccg	gaactgggct	gcgaggggcg	gggcgcgggc	ggagggggg
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93961	tggtttcagg	agcctgtggg	cgtggctagt	ccgggggcgg	ggcctatggt	ttgttcgaat
94021	gacgtcacac	ttgccgcagc	gtataaggcg	ctacgcagtt	ctggagtgaa	ataggttcga
94081	atcccaccac	tgtcaattcc	agactgtgac	cctctgtgtg	tctttcaact	atatcagcct
94141	attccctcat	ctggaaatgt	gtgtttacct	tcttcataga	cttttggaga	taatttgaga
94201	atttccatgc	acagaaacaa	ggatctaRta	gcctgtgggt	acccaagctc	ctggggtcct
94261	gcaggagaag	gcggctgggg	gcctggactc	ctgggtctga	gggaggaggg	gctgggggcc
94321	tggactcctg	ggtccaaggg	aggaggggct	gggagcatgg	acttctgggt	ccgagggagg
94381	agggccgggt	gcctggactg				

FIGURE 2-A

>6:112446501-112541900

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121
       caatqqccaq ctcaqqctaa tctctctaqq ttttaagttt ccaaqqaaqa qaatctqata
181
       gccSagcttc gtgcacgtga tctaccttgg tccagtgatc tatatccagg gaagtgaggt
241
       cgtgcatcta aaacacaggg cctgcccact agctcggaaa tcagttctta gagaagagag
301
       tggtttgcca gataccttag catgatgtct gttacaatac ctgaaatgtt cattattaaa
361
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421
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481
       tgttaccttt ttggaaagca atttgYcttg attcagtaat tctgcccctg ggaatctatc
       ttaaagattt gttcagcaac atactcaaag atttacctac aaagatcttt ggctataaaa
541
601
       ggagaaaact agaagcaact gaaagtctat taatggttaa gtgaatatag taagtgaata
661
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721
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781
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901
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961
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1021
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1081
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1141
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1201
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1261
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1321
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1561
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1621
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1681
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1741
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1801
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1861
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1921
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2041
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2101
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2161
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2221
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2461
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2761
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3601
       tggtaaacta qaatatgtga tactgcaaga atcccatctt tcctatgtac gtagttgcaa
3661
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FIGURE 2-B

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3841
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4081
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       cctagattaa tagctttctt taaaatcatg cattaaatta agagttttgt aaacctctgg
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4321
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4741
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6061
       tttctataaa taacaaccaa qaatacctta ttqcttqtac tqqtattqct tataaaatta
6121
       gacacatttc agtagaaaaa tgtatctcct atatttccaa ctgaaaattt ttgatgactt
6181
       tgttatgctg ggagttgtca acccagtctc agttactttc ctactttcaa tctcactttt
6241
       aatcccttcg aatagatgat atttgggtct ccttggggat gtagctagat gactaggcaa
6301
       gggttaattt actagtttgg ctttttaaaa tctttcactt tttcatctag aggcagaaga
       gacattttta aaagcaagtt agctcttctt atctgaattt gcttattgct tgtcttaaaa
6361
6421
       tatttggcaa gggttaatct tgcttctctt tccttatatg ggcaccaact tcttaagtct
6481
       qccctcaaaa taqactactt tttatqqqca aaaaqtqtta tttaactaac caqqqtaqtc
6541
       tgaggcaggt ttgggtcaga agttctacaa aatgctttgg gtaaattctc acaaattcta
6601
       ctgattccaa ttaaattgga tataaatgtg tcagatgcag gtaatatata tgaaaagtga
6661
       aagctgcttt cagaagttat gtgatgacct ggcacatcag tgtatatatt gatgatgacc
6721
       ttttcagaga cccatcagtt ggatcttaca gtcaccaatc ctctacagac cttagtttat
6781
       tcttgaaata acgtatcttt ataagctgag ctcaaatgct ctgtagcaaa tctaagagaa
6841
       gtatgtatgt tctttttact cttttataaa ttaaatcaca aatgtgtttg ttcattgcat
6901
       acaaacaggg actcttgaga atttttgtgc cagaaacacc tttggcattt tggtaacaga
       tagcgaccgc ttcacaaaat aatgtttta aatgtataaa acaaaacata taataataca
6961
7021
       aaggaaacca atcatactga aatacagttt tcaaaatatt aaaataatct gtgatattat
7081
       tataactttt ttattaaggc attaaagaat aagattccat agcagaccta ataacattag
7141
       aagtagcaat gagcaaaaat gacattctga gatttctgtg acaattgtaa tgtgaaacaa
7201
       aaaaatctgt gatttctatt aatgacaaag tcacaggtac tggtaatact actgtggtgt
7261
       gttgcctaga gtcataatca aagaaaatga tcaatttcag tgagagaaaa taaagatgta
7321
       atcttttcgc attaagtcca cagacccccc tgaattctat ccatgaaccc ttgggggtgg
7381
       gtctatgaat tccaggttag gaacttctga tatacaatac atagaatatt ttataaagtg
7441
       tttgaaatga ggcattctgt gtgtctacgt gtgagtcaaa attaatctga atagaaaatc
7501
       acttctaaca tgcattacaa attatttta ataggcaaaa caattatcac aaagaagttt
```

FIGURE 2-C

```
7561
       cctcagagaa aaacaaacac ttacccctga agcataatag aatagtaacc catttggttg
7621
       taatgttcgg aaattaaaac ctccttcaaa gccatcaaag aaagatattt tctgaattga
7681
       agcaatgaag ctctgtccat tgaaatatgc tctgcgagat atctgtgtgc cagaacaagt
7741
       qqaqataqtq tttttqaqaa ttatcaaatq cttaaaacta tcaatqtttc acatacqqaa
7801
       ggccttgcct gttaRtttct acgtaaatag tttattttcc cacttctggt ctatgttgga
7861
       attcaggcat acacYaggag ctcctctgag agatggggtt tcatcttctc cactgactcc
7921
       aacctgagtg aacaatgatg ctagcacacc ctctctgggt gttagatgcc ccacccatgg
       aaaactgaag caaacgaaca agtcacagag gaaccccatg cacaagagcc cttctagctt
7981
8041
       aatggttctt ctttctggtg gtggcagaaa qgaacccaaq gtgtacctag gatcagagag
8101
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8161
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8221
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8281
       ctgaagttga tatctagggg aaggtgtgct ctgagggccc tggaaaagaa agtcagcctc
8341
       actgatacag ccatgatgat gatgttaccc tgcatatgta ggctatggaa tttgcattta
8401
       tttatagtca tttgtaatgg ctttataatc attcatattc tcatgctttc tttgataggc
8461
       acacagcaat qtctaatctt tqcctataga aqagttttqt tctacqtcaa qccaatttct
8521
       tccttacagt tttcaaaatg ctctaactta cattatctca ttttatcttt ataacaattc
8581
       agtgaaatag atggagatgc tatgatttcc ctttagcaga cgattattag gttgaatcat
8641
       aggaactaac atgttacaca gaaatataat caattcttag taatttcaca gggtttaacg
8701
       taatgaaact aagaaatgaa actaagaaat aaattattct cttatgtcac aagtgatgtt
8761
       aggatttqaa cacaggtctt cagactttta ttaatccacg tcattaatga atccattttg
8821
       gcattatttc caacacatct gtaatcaaca aagtttaggg gagtgtctta atgtttcatt
8881
       atacataata cacaaccctt tggataacct taaaaatttg tgtagctcag atgctattgg
8941
       agagttcaaa atgggtttaa ggctaaagca aaagtaaatg gacaaatgct gttttgtctt
9001
       cacacaatac acatgttcca ccgttcctat tattgatgag aaatactgca ttagatcatg
9061
       ttctaagagt aatacaataa ttgaagaaat ctgtgattac atctatgcga tgctaatttc
9121
       aggaggtect gaggactgae tgeagaggge etgaaggtae atgaatgtgt gtacetgtge
9181
       ctgtccctgt gtgtaaaagt agcaagtaag ggtgcgtaca ctgttactag acctctcctg
       gatgttgcca gcccagtaca ttgctaggaa caaacagcta cttaacaaaa agccttacct
9241
9301
       ggattgtaag atttctggag gagctcctcc aatgtatata tctgtaaaag gtattttcat
9361
       cttttcatta tccatgctct tgacatgcct tctgtcaact accaagatca ttttcttatc
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       attgtggtaa atgattgaga tctgggagag ataatatata gtaagccttg attaactatt
9481
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9541
       ttccatgcct ttgtgcttgt ttgttcacaa aatggggaat agatagattt tcttttctca
9601
       cagacttgaa aactcttgct tctacaagca gcagttcaca ctttctggga aaggaggtct
9661
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       ccttctqaga ggattcagga aagaactata aacaggtgcc accattctct tttttttaa
9721
9781
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9841
       aatttgatga gettggacat atgcaaacac teatateate ttacaateaa ggtaagagae
       atatcacaca tttcccagca tttccttgtg tccctttgtg gtgtgtgtg gtgtgtgagc
9901
9961
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10021
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10081
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10141
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10201
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10261
       aaatattett ttattgtaaa eeatteteat gaggetatgg aetttgaaet gaaaagggaa
10321
       atacagtete etaccetteg cattttggtt caacttaaaa gatattatge ettgtataca
10381
       ctttattaag ttgtatattt aaaatagtta atgaaaatgg atgaagtata ttttcagtag
10441
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       tgtgctagta ttttctaaat tctggataag tggtttaaaa ggaaattctg tatttactta
10501
10561
       tatgtattct tgttaaattt ggtggggctc aaaggataag caaaaaaagg ctgtgtatct
10621
       acactotggc tcattcaaca aatgtataga agtatcctgt aggaatacca attgagatat
10681
       ttaagattaa tagaagcctt ctggttaatt aagcaattaa aaggaatctt tcagtgactt
10741
       ttaaattgga acatcaacag gaaaaataca tccaWtgttt taaagYaaat gttttcctag
10801
       ggttgagaag atgagggtcc ttcagttgct ctttagatat gaaagttctc agtttattta
10861
       ccatcctgcc tgtctcattt gactgcctga ttagatcaac agatctaagt ataaagaaca
10921
       aaaacaaaac caaccaaact acaatgattt gtacctcatg gtattttgca tcattaattt
10981
       gagetttett taacgtatet teaagatgea caSggeeacY getgaateea aaateataga
11041
       acacatgtag gtaaccattg cgcatttcca gtctgaaaaa catactctga ggagagaaag
11101
       Raattgtaag ataggaacat ctgttatgcg agtagagtca gatttagctg aatttgagaa
11161
       ataagactgt attetttatt actggaacta tttgaagact aagaaagtet catgaaatte
11221
       ttatgaaata aaagtgacag tgtctgggag tggtggctca cacctgtaat cccagcactc
11281
       tgggaggccg aggcaggtgg atcacttgag gccaggagtt tgagaccagc ctggccaaca
11341
       tggcaaaacc ttatctctac taaaaataca aaaactagcc aggcgtggtg gtaggcacct
```

FIGURE 2-D

```
11401
       qtaatcccaq ctactcaqqq qqctqaqqca aqaqaatcqc ttqaacccqq qaqqtqqaaq
11461
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11521
       ctcaaaaaaa aaaaaaaaa gtgacaacta cttccatatc agcagctatt tctcttatta
11581
       atacataaaa gttaatattt atacacagtg taaaaattct tctgttttca ttctactttc
11641
       tgaactaatg gatgaagttt taagtctaca ttattgcctt ttaagaaaaat cttgaaaata
11701
       gagtatagta taccatgttt attcaactgc cttgtcttta ggaaactttt aaaaattata
11761
       acaggccaac agatgtgtct gcatttattt taggtgaaaa ttagtaaaat taaaaaataa
11821
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       aaggccattg ctgtattgtt ttgaaacact ggatttatgt aaataaatat agaattatta
11881
11941
       tgcacttgga acacatgatg tttaagaatc aaagaaattt tgtaacactc aaataattta
12001
       ctggagtttt gcttgtttca gaagatagtt catagataca agaagtcaat ggatttgaaa
12061
       aataaagcat tgtggcaagg tccctattct ataggaagtg atctcctgag tggagtttgt
12121
       acattcctgg gagtgtggaa agcagcctac tggagtttag gaagaaaata tttcaacttc
12181
       tatttatact aatttaaaaa aacctgaaat agagaagaaa atatttcaac atccatttat
12241
       actcactaaa aaatctaaaa tagagaaaga aactaacttt taatatttaa cacatgaatt
12301
       attgactctg ggccttcatt ttatcctttt gtcagacttt cacaaaattc acataatatg
12361
       tgtggcttcc caagaggggt tccacacttg aagagttgaa ggtagctcct catccatttc
12421
       tttgcttcta gcctattgca atttattgca gtttacgtgt ggctagttat atggatttaa
12481
       ggctgatata accgaaataa tagaatattt acactcattt tgtattgaga tgtagagtga
12541
       tgtgaaaaca ttttgagaca cacagatatt tgctggctac ttcctacaaa tttctgaaaa
12601
       tgctgttaag tttatagagg gttacacatt tttctttgta acatgaatta ttctaaattt
12661
       gttgaacttt attcgtgatg acaaatgtct gacagtagta tgaatcctac tagttatttc
       aaaaaagaaa catactgtca catcaatgta agggtattat cataataatg gatgagaaag
12721
12781
       taactttttc tcctttttt tgaggacggt tatactgtgg agagatggtt tttaaaaaaat
12841
       atgtttggga atttttctat tgttgctttt gttgatggga acaatgtaaa tgcaatccta
12901
       caaaaactct cctatcagct ctattaaaac atttgaggga agaaatttct aacctttaga
12961
       aaaatatttc aaataaagat tttcaatagc tttgaaccct tttattaaag tttacaaaat
13021
       gatacctggt tagcttacaa gaactaatat tagaaaaaag gaaatacacc aatcaaatct
13081
       caaagacaac ctttgccact tggtgaatgt gattgaaaac tatttgagtt agtaggcaca
13141
       gctaatgata tggttctttc attttttatt tttgtgaggt gtcttgtcta gttacaacca
       ccaataaaat tactgttgaa ataaactgga cttaggacaa gacttttgaa tcactgtgtc
13201
13261
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13321
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13381
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13441
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13561
       13621
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       caccetgete atetagatet tggttetaat tteeteaaag ttetettagt ttatttatat
13681
13741
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13801
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13861
       acacactaga cctgggaagg ttcctggaaa catgagtagc agaaagtaaa ggaaataaag
13921
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13981
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14041
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14101
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14161
       tttctgttat Rcttttcaag tgaagccctt ttaacccatt cttctaacat cttctgtgga
14221
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14281
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14341
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14401
       tacttgggca tgctcatcta tgatagagaa caggtgaaga gttttttgca ggtatgactt
14461
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14521
       cttgttctat ctgctgctct tgcatgaata tccaagtctt tagtactctt aactgtctct
14581
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       aagctgatca catcattatt caaagtggcc agttccaggc agccaacaaa gccaggcagg
14641
14701
       tttaagctgg tagggagcta tgcaatagaa aaagtaaaac cacttgtctc atggtcatat
14761
       tttactcaga catcacagaa cagacaatgc aactaatagt aggtcaagga gacctacccc
14821
       tttqtqqaaa tatctttcta qacccqaqtq tqtttatqcc aaatcattta qatatqqcqt
14881
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14941
       gctggtcata ggctgtacag tgaattcatg acaaaaatca gtccttgcgc cagctttgtt
15001
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15061
       tatgtgccca taactagtaa taatagtcct gaaattggaa ccctagatca acttcccatc
15121
       ttcttcgacc tttcctttat cccccttcat cagatttcat actctctccg aagtctcacc
15181
       ccctctctca tcccagatac tttatttcat acctgtatta ggtgagataa ctgaattttt
```

FIGURE 2-E

```
gaaaccacca ctgcaaagct gaagattaga tctaaactgt ggtgacacca caagctacgg
15241
15301
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15361
       ctgatcttca ggagttagct ataacttgaa agcatttgac attatgaaaa tatgagtagc
15421
       atagaccaga tttacacatc aggtttatag attctggttc agaattctac tcccccatga
15481
       actaagctct taaagtgata tcagcaaccc ccaagtcatt ataggtttat ggatttataa
15541
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15601
       ggaaggcact ccaccaacat aaaacactgt gtcctcaggg tccaggtcca gcagagagtc
       atctcccgaa aattccccct ttttaatgaa cttttcctct gctgtgctac ttagactcgg
15661
15721
       gactgttaaa aacacctttc catgttttcc caccctattq agataaataa ttttcacttq
15781
       ttattatata attcatagaa aatacttttt aaatgtcaaa atgttaatgc tccctcatca
15841
       caaaatgggt aattttgtga cactaataag catttacaaa ataccacaat caatgagaaa
15901
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15961
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16021
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16141
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16261
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16321
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16381
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16441
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16501
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16561
       tgttggctgc caggaatggg ctaattttgt gaggctaacc caggaatata atacagcctg
16621
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16681
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16741
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16801
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16861
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17461
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17761
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17881
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17941
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       atattaattt attaatattg atttggctaa tgtgggtggt cagtgagctc aaggctctat
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18121
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18181
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18241
       tgagtaactg ggactacagg tgtgcgccac cacgcccagc caatttttgt attttggtag
       agacagggtt ttgccatgtt ggccaggctg gtctcaaact cctggactca agggatctgc
18301
18361
       ccaccttggc ctcccaaagt gctgagatta caggcatgag ccaccgcacc cggccaagac
18421
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       tctgagaata gtgcatgtct gcatgaaaag catcccactt gggggcactg agtgagctcc
18481
18541
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18601
       caaagtcata ctctttatag aaataatatt acaagaaagc actcataaaa acctagcttt
18661
       tagaatgcca tttcttgatg tacctttaga taaacctttt ttgaaaatgt tcactggggc
18721
       atctaaataa ggtaatttgt cacaagggac catttatcat catttaaaag tcaggtctat
18781
       ttaccaagaa taatcttcta cattacgaaa tagttgattt ctaactcttc tttctgtcag
18841
       taattaggac cagtagtctg ctcaggccga ttcttaactg agaaaataaa accatatact
18901
       ttggtcataa aaagtgagtc tggtctatga atcaattaaa aaaattcaag aggtccaaga
18961
       acaagctcca ctttgccaca ttgaaaagta attgctatgt caggagatgt tcctacaaat
19021
       gccagcccta gttatcttct gctaagttgc ttctatatgt gtcccaaaac acatatagtg
```

FIGURE 2-F

19081	tgtttgttga	gtttattcct	cttagccagt	atgtgattcc	tcagttaacc	ctgcgggtgg
19141	tcagtagaag	cttctgcata	atttatatta	taccagataa	tttcttgaag	gggtaggaca
	-	-		_		
19201		attattccat				
19261	atataagaac	gaattgaggc	ttttattgag	gctttacttc	ttttgctata	ttagctttat
19321	tractarttt	aactctgtgg	tttttaaacc	taactacaca	ttagaataac	ctaggagett
					-	
19381	taaagaacat	acaggtactg	agccctttct	ctacagagtc	tgatctattg	ctttcaggtt
19441	gggaccagga	attggtttcg	ttttcagtgt	tecteacata	tttctaatta	gcaaatgggg
19501		ctgagttgga				
19561	cagttggagc	tcagcttcgt	gttattatta	ccgctgactg	actgatgagt	cttttcatca
19621	attaccttac	tggcaacact	totaatotaa	gcaatgagct	ctcggatcct	ctagatacta
	_					
19681	gcagaaacgi	tgcttgcagg	tegettetge	tcaaccgtac	gaagetgate	caggagetga
19741	gggacaacct	cggtcagatt	tcttactgca	gttaataaaa	attaatcatt	taagaaaata
19801	actcaatatt	atatttcaag	aatcagatgt	agacaataaa	catqqattac	atatootaga
		_		-		
19861		atgatttta	_	_	_	
19921	tgtgctttga	tcagggaata	ggttgaggca	gacatctggg	ccagacggac	tcagctagtt
19981	tagggcacag	gtgcatactc	catttgttat	ataacctdtt	tatataaact	catacttggc
			_	-		
20041	tcacagccac	tattgtttga	aaatgtataa	digedetiged	gatgccatgc	acaggatgcg
20101	tgctcttgcg	cccagagaaa	gagagaatgc	caaggccgcc	tgtcttgcag	acggacagag
20161	ggagagccag	ggctcaacat	gactcagaca	tactaatacc	сааададада	gtaacgctac
20221		aggggagagc				
20281	cttgtRcctg	gaaagagaga	aagttaagct	gctaaccctg	aaggcaagag	caagccgact
20341	acteaactat	gtgtgggagc	agccagagca	agcagccgag	acadadcadd	cagtgtgaga
20401						
		tgagagagct			-	_
20461	tgttctttca	gccacccacc	cactccactc	agacctcagt	atgggctcga	acctgacccc
20521	gagcatgaca	tttggcatag	tcatagacct	aacaaagccc	aaagcacagt	ttatttctat
20581		tttatagtac		_		-
		-	_	-		-
20641	aagggcaggg	accacggtat	atatacaaat	gttcctttaa	ccatatagca	caggttctgc
20701	ttgcatttct	aatataactg	atataacagg	tcaaqaqqaa	tactqqqaaa	aaaggtagga
20761	_	ccaccttttt				
				_	_	
20821	atagaaaaga	gcgcaagtca	gatgggcttg	atggeteaca	cctgtaatcc	cagaactttg
20881	ggaggccaag	gctggtggat	cacctgaggt	caggaggttg	agaccagcct	ggccaacatg
20941	gcaaaacccc	atctctacta	aaaatgcaaa	aattatccad	atataataat	acacacctat
	-		-	_		
21001	-	actcgggagg				
21061	gcaatgggcc	aagatcgcac	cactgcactc	cagccggggc	gacagagcga	gactatgtct
21121	caaaaaaaaa	aaagcaccag	tcataagaat	acagettgat	gagagaaact	caaaacaaaq
21181		aaatttttcc	_			_
21241	cccagacaag	cagcagcagc	atcaccagga	acttgtcaga	aatgcaagtt	cttggccctg
21301	tcccgagccc	actgaatcag	cagttcctgg	agtgggatcc	agcagtctgt	ttaacaaggc
21361		ttctaatgca				
21421		tctctttcct				
21481	agagcaagcg	tcttcctaga	gaaaaactaa	actcacattc	aggagactat	gtcagtgcag
21541	atcaaggaaa	catcccttct	ctgtacttag	gacacacgat	gtttctccag	Yacaaggaat
					-	
21601	-	aaaataatag	_		_	, ,,
21661	atttattgtt	tggatcactg	acaacgacat	ttattttaga	gtatactagt	ctttaaaaac
21721	tagagataat	atacttaatg	aattatgtta	gatattgatt	atggaaatgt	ttataagaca
21781		gctccctaca				
		_				
21841	tacttataaa	gtgtcttaca	ttatggtatc	ctctttcatt	tcctttgttt	tgaaccacaa
21901	aatgctattt	gagaaaagca	caqtaaacaa	tttcaatttt	ttgaaacttc	tggatgctta
21961		ttgataagac				
	~ ~				-	
22021		caatatcatt	_	-		
22081	aagacaaaat	tttaaaagca	cttccttgag	tggttacatg	gaagaaatga	atatatactt
22141	aaaanatcat	tataaaagag	ctattttact	attataggaa	tagatattta	taaattooaa
	-					
22201		actgacagat				
22261	gaaggtagta	ttgtWtgcaa	aaccatattg	gagaacaaaa	agttctagtc	atgatttgtc
22321	atgatattga	cagacattgc	tatttaagaa	gttatgaagg	gattggataa	aaatgtgaga
22381						
		cgaaatttca				
22441	tagacatgaa	aatatttcat	tttcatttct	atagaactgt	atattcaagt	tggccaacac
22501	actattetta	atagaaagct	ggagttatgt	ttggccatat	tcagtacttg	ttggtaataa
22561		cagataaaga	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	J J	-	
22621	tttttttct	aaaagctaag	cagtattttg	ttaagattat	ttacccaaca	tttgattaac
22681	cttqttccct	aaaagataag	tcttacatta	atacaattqc	taccataatt	tcacatagaa
22741	_	ctctttacca		_		-
22801		gacaggtata				
22861	ctaagctaac	ttctataatt	ttcgaatcca	aaacccaaat	gaagaaaact	gttttttgac
			-			_

FIGURE 2-G

```
22921
       aaaaqatqta taqaqtttaa tqqccaattc cttaattaqa ttcaaattqt qaaatttcta
22981
       agtgatacct gcatccctag cagagttcac tgcagtgttg taagcagaag agtcaaaatg
23041
       ttgaagattc tgtgaccagt tggttagatt gttggccatg ggggcagtgg cctgctgcac
23101
       ctccatcgtc gtcctgttgg cttcctcggt gatcagtcta gactgcccca ggcgctgctg
23161
       ggcatcccct ttacacagag cacagggtca ttcactttgc agagaagccg gatatttgtt
23221
       ggggaacatt aacaccctt taacccttga atgaaacaga tctcacattt tgggctctta
23281
       agcaaaagta agatttttgg ataaccatgt ggctcaccga aaacatttcc aaattaagag
23341
       gtaaatttaa aaagaagagt aattgtattt cctataacct ggtaagaaag ccatagaaaa
23401
       tgcacatgag attttaactc ataagaggtt tgtgtctgaa attaattgca aatatcactg
23461
       tcttttatga aaaagtaggc ttgtggaaca cttctgccat aaaaatgatt ctatagaagt
23521
       taatcaataa agaaagatat ttttttaata gaaaaaaagc aaatttcaaa gagttttagt
23581
       agtgaattcc catttttgtt aaaaattaca tctttaaaat aaccatgatg taaatttaca
23641
       acaaaaaatt ttgtctaggg gatgggatta taggtgattt tcttcttttt ttcttatctg
23701
       cattitictaa tattictatg agaattatti attattitta taaaaaataat tataattcat
23761
       ttaggtgact ttataacttc aaattttata aatttgaagt tgtgccctaa tttggttatt
       23821
23881
       tagaactgta aaacaattat aaatttgaag ttataccatc acctaagtga attataatta
23941
       24001
       gtgaggatat atttcattta gcctcacata ttctggattc tgataaatgc tagtttcaat
24061
       cctgaatctg cttcttactg gctgtgcctg ttgcagcaag ttccctaacc ttcatgaacc
24121
       tcagggttca tatcagcctg aaggcagtag tggtacttat ccccatgaca taaagtatta
24181
       atatggttgg ctgtgttccc acccaaatct catcttgaat tgtaatcttc cataatcccc
24241
       atgtgtcatg ggagggatgg gtgggaaata attggatcat ggggacagtt ttccccatgc
24301
       tattcttgtg atagtgagtt ctcatgagat ctcgtggttt tataagtgtc tggcatttcc
24361
       cctttgctca gcaatcattc tctctcctgt caccctgtaa agaggtgctt tctgccatga
24421
       ctgtagtttt cctgaggcct ccccagccat gcagaactgt tagtcaatta aacctctttt
24481
       cttataaatt acccagtgtt ggctatttct tcatagcagc gtgagaacgg actaatacag
24541
       ctatgttgaa cacttaggac aatgcccagc tcacactaag catcaataaa cagtcattct
24601
       gatgacggtg atgatgaggc ttctccatga aggaccactc tcctggccag agctttggtg
24661
       cactgtagca ctgtagctag gatttgctca ttctagtaaa acacccatat gctgcactag
24721
       ttttttaact ttcactgcgc gaaggaaggc acatctgctt ccaatcacat ctatctaaga
24781
       taccactgca gtcccagatt aagcaaaacg tgtgcttttg tttctctatt tgggcttgtt
24841
       ggtctccctg gtttctattt ggtctctggg cctgttgctt atatggtaag aatgacttga
24901
       catgtaacag agggaagctg tttacagctg ggccaaagaa atccaataac caaattaggg
24961
       catattgtta tgaggaagga tgttcataag aaagccatta ccaaacacta taaacagcat
25021
       gatcccatta aaagacacac acacacaca acacacaca acacacagac acacacagac
25081
       acacacaca agaggcaatg ctggaaaaaa aggctctcaa atctaaaggt cacctctacg
25141
       tggtgtgatt acagcattta tatttagttt cttctttttg ttttctagaa cttttttttg
25201
       tgatgaacgt attttgtcat cagaaaataa catttatgta taaaatcatt gacaaacaaa
25261
       gaattaccta atccttcctt gaaggtttac cttacactcc agtgaatcaa cagatgaSac
25321
       ttcaattctc tctgatgctt acctctctct gctgcttgta gttgcttaac ggcatcactg
25381
       agtotggttt taagggcact tttccttgct agggctccac ccacacgcct gctagtgtca
25441
       qccactqctt catcactqcc tqtqqaaqaq caqcaqaaaq aaqtactaqt qqaqccaaqa
25501
       tgcctcgaaa aggattccat ttcaacaagg aaacttctca tttgtacgat gcagtcatct
25561
       gcagtatttg cagtattctg aatactctga acatagatca acaattctgg aaagtagcat
25621
       ttaaaattcg aggtacagaa ttgcagaaca cttgtaatac tgcttgtgag tgacttagga
25681
       tgccatcatg gttactttct ttgattgaaa catatagccc tgccatgact aataacacca
25741
       agcagcacaa ttgttaaaga gctgaaaaga aaaaaatctc tctctcta catatatgtg
25801
       ataacgactg gttataaaaa taatccttgt tttcttattt gtttcaataa aattttaatt
25861
       gcaatataac atacatctag aaaaaggcac cctttataaa tgcacagctt gacaaaaatg
25921
       ttcacaaaat gaacacaaaa cataaccggc atccaagtca agaaaataga aacttattac
25981
       cacctttgaa gctccctaga gcccctgtga taacccaaag ataatcactt ttttgaattc
26041
       tatctccatc tgtttgtgtc tgtttttaaa cattattcaa gtgaggatat ggtattataa
26101
       tcttttatat ctgtcttaat tattactata tagagctata atacaccttg ataatgtagt
26161
       ttgtcttcca gctttgtttt tattcttcaa gacagtcttg gctattcttg gctttcccct
26221
       ctcatttcca tataaattct agaatattca gttcaggtac tttaattaat actgaattaa
26281
       atctgtagat gaatttggga gaattgtcat ttttacacat tttaatcttc tactcaatga
26341
       atatggtatt tatttatcat ttatatataa attcttgttt agatcttcat ttatttagat
26401
       ctttatgcgt agcaacctta gcttctttta tcagatttat tcctatgtat ttgatgctat
26461
       tgcaaacact gttattttta aaagttaatt tcccaatgtc gtatgtaaaa ttaaatcgga
26521
       tttttacaca ttgaattggt aatgtagggt gtccttgtat tgtttctaat attagtggaa
26581
       aagcattcaa tatttccatt ttaattgctg aatattattt tatttttcag attatggaag
26641
       tttccttcta ttctcagttt gccgaaagtc ttttttaaaa gtcaaaaatc ttttttaaaa
       gtcaagtttg ttaaataatt tttctgcatg tagtgagatg atcatatgaa tttctcctat
26701
```

FIGURE 2-H

```
atcctataaa tgtgacaaat tacaattgat tttttaaatg ttaaactatt cttgaaatcc
26761
26821
       26881
       gctaatatat tgattagaat ttttgcatct ctttttgtga gagaatttgg cttataattt
       tcctttttaa taatatcctt atgtgattca agtaaccaag ttttgctggc ttcataaaac
26941
27001
       aaqttccaqa qtqctttctt qttttctatt ttctaqaaqa qctcqtataa aaqtqqtqtt
27061
       atttcttctt taaatgttta agaattcact ggggcagcca tctgagcctt gagatttctt
27121
       tgtgggtagg gatcgattag tggttaaatt tattatacat atgtatgtac atacagttct
       atcagatttt gtatttgcat cagttttgag agtcttttgc ttataaaaatt gttcttgaaa
27181
27241
       gcacacttgt ggcacagtca ctagactggt tatctttgag caaatcccaa cagatcatga
       tgtaattacc tcatcatctg aactaaagga tcaactttgc cagtaattct tcatttctgt
27301
27361
       ttgtgcttta attccaaagc actgagaatt ttgtttctta acaaacagaa aaatagtttt
27421
       atcacttcta attacacttt tctctttctc tccaatggga ttgtaaatat acactctctg
27481
       acggcacccc tttgctgttc tattaggtag tcttgatgtg attggtttaa tgttatcttt
27541
       ccccccaga tatgtgtata atgggtggtg gtgtcatgaa gtacagttaa ccaaatacaa
27601
       gcacttcttt catattttct ctgggtagtg tgaagaattt gcattgcacc ctgcctcctt
27661
       cctcttttct aatttcaatt cccaaacatt ataatacaaa caatgtttta gctcttattt
27721
       tgggtctcat gactgcaaaa acaaaaaaaa atactacctg atatactgag aaagaatata
27781
       tttaactcta tatttggagc acttgataaa aagaggagga agaaaatcaa ttttgggctt
27841
       gatgtttata agaagaaatg tttcataaga agtgtgttct atttggaatt tactgacttg
       cataaatact tttcattttg caaatgagtt aagtagaaga ttcatttaaa tagcagcttc
27901
27961
       ctgagattat attgactatc aactatttga tatataRtga aaaggaaatt tgggaaataa
28021
       agattactga tcattgaaag gaatttggaa tggagaaatg taatctgaaa ttataatgta
28081
       attcagtaga `tgactatggt ttaatttgaa aacctgaatg tacatcacaa atgtgtgtat
28141
       tatcaaagga agacagtcct ataaagttct aagccacaca gtactaactc cctgttgttg
28201
       ttccttttgc aaataaatac agaaagggat ttggccaaat gagatcatga aataggtgaa
28261
       caggtctgca aaatattcaa acaggctaat gcagagagat ttatcagaca taaaatatgg
28321
       aactttgaag ggatgtgggt agggatcgat taatggttaa atttaaaata gaaaagttgc
28381
       ttttatgagg ttcaataact caataatgac aagactgaga gaatatatta caagttatca
28441
       aaaagaataa aatatttaag tcactgtgtc atgaagactg acacattctg atcttcacaa
28501
       gaaacaaaag caatacatag atatagcaac atttatttta aaatatttta ctgttaatat
       tctaattctt cactactgat attctaatcc atagagtatg ttcaggatag acttacataa
28561
28621
       taaattaatt agacatataa taattagact agagaaacaa tgacactttt tattgccttt
28681
       gtttgcccag aaaaataaaa taacagttgt tttatgggaa ataaataagt atctgtgtat
28741
       gaaaagcaaa gtgcatttat cttctctgtg taatggctct ttgcaaaaga taaagaaaat
       gcatgattaa atgagattaa ttacttcaac aaaattgggt gaggttttta gtttcaaact
28801
28861
       tggcctttgt ttttaggtgg cagttagaag ttcgctagat gatgaatttc caacctcatt
28921
       agtcaatgtt caaaaatcct tgggaattag ttcattatct cagagatgaa taatgtttag
28981
       tgaatttctt agtccattcg attgttttta agagtaactc acaagattca aaattgtcta
29041
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29101
       gatgcaaaca ctggcctttg gaaatgcttc ttaccatatg cttgttaggt ctgtcctaaa
29161
       29221
       ccagatggct ttgtggtacc ctgtcatcct aattgactca cagtgatgac tcgttccttc
29281
       atgggaaaca ttttaaaagg acttcgaaat tgttcaagaa agaggaaatt ttgtgcaata
29341
       tagttttagt gttaagtgta ttttaggaca tttttcccct aaaaattggt atttatggta
29401
       agtttctatt aatcagccta tttgattagc aggaatagcc acagtatgtg agatagctat
29461
       gtgtttccat gtagtttact acatagcatt ttttttttca atcacaattt aaagtatcaa
29521
       atctttqctc ttttqtaact tqactctqaq caqqaactac tgatatgtta tgtagttata
29581
       atactattct ttaatcctag atttggaaat ctctgtctac gtgtatgaaa ggagggaagc
29641
       agctataaat tagaaaggag ataggaaagt gaagatattt actagactct gcctttgctt
29701
       gcagttctct ggcttgattg aggaggttct cactttcatc tttatggtaa atgatttgag
29761
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       agaaatcagc tattcatagY tgaaggattt aaatgacaca gtttatctgc taaacaccaa
29821
29881
       gcaaaatgca tttagcttta ttttcacagc ttaaaattaa qqtcaaatat qtqaccatqa
29941
       ggaagtaatg cctttggcat tttcaaggta atgtttttt gggaaagatt cagtgaacct
30001
       agaacaaagc cctggccaag gccccaccaa agtgcttgcc acatagaagc cacacaataa
30061
       ataattttga gttgaaaaaa atataaatga atgcataaag tatcttctct atcagcaaga
30121
       actaatttta aatacatatt tttttttca gggactttgg ctaaaaaaaat aaactgtcaa
30181
       aggaactggc atttgctgac tggactacag cacatctcga agaatctgca qactgaaacc
30241
       ttcaaggcat tcatgaaatg gtcttccctt agttcccctg ccttttccac tctttctgcc
30301
       atttggattt cacactggaa gttcaagaga tgacatcaga aaacagaaaa gccagtggga
30361
       aaggcaaggt ataaagaact ttcagggaat actcacatca taaattcggt cagtggtgtt
30421
       caaagcaaat tctgctgttt cattggcttc actaacataa ttaacaatat tttcatagac
30481
       atttgatgca tccaaagcct tctgtaccag cccgttcata tctgaactgt gcaacttcct
30541
       gttaataaac aaacattgtt atttctcctt cttaccttct tggggaatgg ggccatgttt
```

FIGURE 2-I

2001						
30601	aatgcttgct	ttttaaatac	ttctaggatc	acagatgctt	ccttcctgtt	attcaaagtc
30661	acctantata	acaagatttt	cttgagggtc	acacctcctc	tacattette	tatetttaet
30721	-		gacagctgcc			
30781	gacgatttaa	aaacagccct	ctgcacttct	tcttgcagga	gtttgtttat	gtgatggaag
30841	tcanncanan	naatnaacca	ttatgatgac	tacctantoc	ttatccaaat	cagcattott
30901	atttcctttc	tgtagaggaa	gccaaggctc	taggagagta	tgcagagctt	ggccagggca
30961	catattatca	aggtttgttt	cactcctgag	acctaactac	atcctgggcc	tcaggagtga
31021			agcacacagc			
		_		-		_
31081	ttcacacSat	agtctctgcc	tttgcccctc	tctggcctgt	gtaaggttca	tccaacattt
31141	actgagtacc	catcacacag	ggtacttgca	cacttqcaca	caggggctaa	taatgtgaga
31201		_	gaaatgcttg	-		
				-		-
31261	agggtttatt	attataccta	caccatttcc	tgaattggga	ttttaaaact	ctatgtgtac
31321	ccgcataatt	tattttattg	acaaatactt	ctactgcctc	tgtaatataa	actctaacct
31381	ccacttccac	anttenteta	aatcctttgt	cttaatttta	ttcantctta	aatccaccaa
	-		_		-	
31441			gtcccaaaca		-	-
31501	agtaacttcc	agaaggtcct	ccgtgaccca	gtatatgaca	ttgcagatcc	cacactggct
31561	cctatcttca	aaccocctoa	cctgttgagc	tcootaatto	ttcctcaatc	tccagcatcc
31621	_					-
	-		cccttagagg	-		
31681	ctctctgtta	accaagtcta	taatcattct	accccctcta	caaaagggct	gactcatcca
31741	ttaggcacag	cottttcatt	ttttttcaa	tcagaaggaa	aaaatgagga	taacaataat
31801			caatgcagac			
				-		
31861	gaaaggaacc	caccaaggca	aaagtgtcta	gggcctatag	aagtcatggg	gctctgctct
31921	acagaggga	gtctaatcta	aatactcact	acctattcct	ccccacaacc	ccttctgaga
31981	2 2222	-	atctggggaa	-		
32041	gacaaaagaa	acaaaatgtt	acaaatattt	attaatattt	taaaattttg	ctggcgagag
32101	tggtaagatg	taccaaagat	catgaaacaa	agcctttatt	actttgcttt	taatactagg
32161	cacagaacaa	gtactaactc	agtattcaaa	ttaaacatgt	gctattgaaa	tggaagette
32221	_	-	_	_	_	
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32701 32761 32821 32881 32941 33001 33121 33181 33241 33361 33421 33541 33541 33541 33541 33601 33721 33781 33781 33841 33901 33961 34021 34081 34141 34201	agctcatgtt caccaagatt gagtgttga taatattggt ataatgatct tactttcag ggaggaaaat ggcactgtg agaccttcta tactaaaaat gattttttt tctcagatgg caaccaacat cagtagttct catttctaaa catggtcaat cttgtagtt aagataattt atgattaat ttgattt tactaaaact ttgtagtt tactaaaact ttgtagtt tactaaaact ttgtctaat ttgtcttaaa ttgattgct tactaaaact ttgtctcacc tctatttct ttactctacc	tctagggcca ttatatgacc aaattttgg tcttatttta cattatttgc ttaacattaa tgccaattga agtatttatc ggtgtggaaa aagggatctg tgtggaacag aaataaaaaa aacaaccaac atcaacaacat gacatatgga accaggatat agcttcttgg Rcttttggct ataaatacat ctgttcttc actgtaagta ccctagctag aaactaaaac tcttcatagc ctcactttat aaaagagaag	tgataccgag tctctttc aatcaagaat ttaatgacct ctattattc ttgagtgtcc ttttctctta agaagtcagt gataatgctg atttatttga acaccccct gaccagctcc caaccaacca aagcataccc attgaatacct tccatctatt tgaatttaga tacttgctca tccatctatt tgaatttaga ttattatga tattattaga tcatcacaac cctcaattat cattcacaac cttcaattat aacatattt attcctatt	tgggatatgg ttttcttctc aagaaggtga ttactggtcc agggtcatga aagaggtgttg tatattgcca tctatgaaat caatgtttta cttcccggaa cccaaacaat accaaccaag aaccttaatc aatattttat attcattagc ggctgaggtt ctgcataaat agaacttaaaa ggtcagtaaa tatcccgcat ccagaaatgc ccaacatgt aaaaatgga ttgacctagt ctaagttact	cactgtctca tcttcgtagg tttatattt ttttttccta attcaattct tgattctatt aaatcaaata attcccgacc aaataggtaa tcacagacctt tgcaatgaac caaccaagga aacctggtaa tcaccccatg ttcttgttga acttaggtta cctgacgca acattttcc tttcagtgca ttctagtgca tcaccactt tccagacct tctcagtgca acattttcc ttccagtgca tcctcatttcc ttctcagtgca tcctcatttcc ttctcagtgca tcctcattt	cccactgaca agatttggaa gaacagaagt gtctttctct gatctttcag ctaggtgctg gttcctgctg agttttactt ttgtagaatt ttgtgtcatcc taatatgaca aatgatgac accaaccaac aattgtatcc tagatatttg aggtcctgtg gatagtttta ttctaaagaa ttcttactgaa cagaccacaa ggaccacaaa cataccataa cataccataa actacaatac atatgttgtc ttctactcca gacatcatc
32701 32761 32821 32881 32941 33001 33121 33181 33241 33361 33421 33421 33541 33541 33541 33541 33601 33721 33781 33781 33841 33901 33961 34021 34081 34081	agctcatgtt caccaagatt gagtgttga taatatggt ataatgatct tactttcag ggaggaaaat ggcactgtg agaccttcta tactaaaaat gatttttt tctcagatgg caaccaacat cagtagttct catttctaaa catggtcaat cttgtagtt aagataattt atgattaaaat ttgattta tttgtgtt tactaaaact ttgttgtct cattataccaact ttttctgctc tctatttct ttactctacc agttttcatc	tctagggcca ttatatgacc aaattttggc tcttatttta cattatttgc ttaacattaa tgccaattga agtatttatc ggtgtggaaa aagggatctg tgtggaacag aaataaaaaa aacaaccaac atcaacaacat gacatatgga accaggatat agcttcttgg Rcttttggct ataaatacat ctgttcttc actgtaagta ccctagctag aaactaaaga tcttcatagc ctcactttat aaaagagaag tgacctttca	tgataccgag tctctcttc aatcaagaat ttaatgacct ctattatttc ttgagtgtcc ttttctctta agaagtcagt gataatgctg accagctcc caaccaacca aagcataccc attgaatagt tacctgctca actaaatcat ccatctatt tgaatttaga ttattaga ttattatga tcatcacac cttcaattat aacatattt tataatacat tcattcactat tcattcacaac cttcaattat tatactatt ttaattacat	tgggatatgg ttttcttctc aagaaggtga ttactggtcc agggtcatga aagaggtgtg acaggtgttg tatattgcca tctatgaaat ccaatgtttta cttcccggaa cccaaacaat accaaccaag aaccttaatc aatattttat attcattagc ggctgaggtt ctgcataaat agaacttaaaa ggtcagtaaa tatcccgcat ccaacaatgt aaaaaatgga ttgacctagt ctaagttact aggtgactga	cactgtctca tcttcgtagg tttatattt ttttttccta attcaattct tgattctatt aaatcaaata attcccgacc aaataggtaa tcacattgtct tgcaatgaac caaccaagga aacctggtaa tcaccccatg ttcttgttga acttaggtta ccctgacgca acattttcc ttcagtgca ttctagtgca tcccagctct tccaacgctct tccaatgtc tctaccatt ccctaatgt agttgttat cctgtctgat agttgtttat cctgtctgat aaatctaatg ctacttccta	cccactgaca agatttggaa gaacagaagt gtctttctct gatctttcag ctaggtgctg gttcctgctg agttttactt ttgtagaatt ttgtagaatc tagatagtgac accaaccaac aattgtatcc tagatatttg aggtcctgtg gatagtttta ttctaaagaa ttctactagac acagaccacaa ggaccacaaa ttcttctgta actaccaaa actaccaata tcatcctgaa actaccatac atatgttgtc ttctactcca gacatcattc aaaatcacct
32701 32761 32821 32881 32941 33001 33121 33181 33241 33361 33421 33481 33541 33601 33661 33721 33781 33781 33841 33901 33961 34021 34081 34141 34201 34261	agctcatgtt caccaagatt gagtgttga taatatggt ataatgatct tactttcag ggaggaaaat ggcactgg aagacattca tactaaaaat gattttttt tctcagatgg caaccaacat cagtagtca cattgtagtc aatttctaaa catggtcaat cttgtagtt aagataatct agtcaaaat ttgattgct tactaaaaat ttgattgct tactaaaaat ttgattgct tactaaaac ttttctgct ttactcac agttttcac tgtaacac tgtaacac	tctagggcca ttatatgacc aaattttgg tcttattta cattatttgc ttaacattaa tgccaattga agtattgaaa aagggatctg tgtgggaacag aaataaaaaa aacaaccaac atcaacaacat gacatatgga accaggatat agcttcttgg Rcttttggct ataaatacat ctgttctttc actgtacta cactaagta ccctagctag aaactaaaaac tcttcatagc ctcactttat aaaagagaag tgacctttca gctctcttgg	tgataccgag tctctttc aatcaagaat ttaatgacct ctattatttc ttgagtgtcc ttttctctta agaagtcagt gataatgctg attatttga acaccccct gaccagctcc caaccaacca aagcataccc attgaatagt tacctgctca actaaatcat ccatctatt tgaatttaga ttattaga tattatgaa tatgatatt cattcaatat cattcaatat acatcattt ttaattacat gttaccttc ttaattacat gttaccttc tttaatacat gttaccttc tttttaatac	tgggatatgg ttttcttctc aagaaggtga ttactggtcc agggtcatga aagaggtgttg tatattgacat tcaatgttta cttcccggaa cccaaacaat accaaccaag aaccttaatc aatattttat attcattagc ggctgaggtt ctgcataaat agaacttaaa ggctgaggtt ctgcataaat acaaccaaga tatcccagcat ccagaaat accaacatgt caaaaaatgga ttgacctagt ctaagttact aggtgactga aaccacagac	cactgtctca tcttcgtagg tttatattt ttttttccta attcaattct tgattctatt aaatcaaata attcccgacc aaataggtaa tacattgtct tgcaatgaac caaccaagga aacctggtaa tcaccccatg ttcttgttga acttaggtta ccctgacgca acattttcc tttcagtgca tctcacgatt tctaccattt cctacatgt agtttta cctgacgct tctaccattt cctacatgt acttctgttga cctacatgtt cctacatgtt cctaccattt cctacatgtt agttgttta cctgtctgat aaatctaatg ctacttcta ctacgattt	cccactgaca agatttggaa gaacagaagt gtctttctct gatctttcag ctaggtgctg gttcctgctg agttttactt ttgttagaat ttggtcatcc taatatgaca aatgatggac accaaccaac aattgtatcc tagatatttg aggtcctgtg gatagtttta ttctaaagaa ttcttctgta cagaccacat ttcttctgta cagaccacat catatgttgc tctactcca gacatcattc gacatcattc aaaatcacct gcttaaagat
32701 32761 32821 32881 32941 33001 33121 33181 33241 33361 33421 33541 33541 33541 33541 33601 33721 33781 33781 33841 33901 33961 34021 34081 34141 34201	agctcatgtt caccaagatt gagtgttga taatatggt ataatgatct tacttttcag ggaggaaaat ggcactgg aagacatcta tactaaaat gattttttt tctcagatgg caaccaacat cagtagtca cattgtagtc aatttctaaa cattgtcaat cttgtagtt aactaaaat ttgattgct aactaaaat ttgattgct tacttaaact ttgattgct tactaaaact ttgattgct tactaacac ttgttctc ttactctac agttttcatc tgtaacac cgtgcaactg	tctagggcca ttatatgacc aaattttggc tcttatttta cattatttgc ttaacattaa tgccaattga agtattgaaa aagggatctg tgtggaacag aaataaaaaa aacaaccaac atcaacacat gacatatgga accaggatat agcttcttgg Rcttttggct ataaatacat ctgttctttc actgtaagta ccctagctag aaactaaaac tcttcatagc ctcactttat aaaagggaag tgacctttca gctctcttgg tgtagacgga	tgataccgag tctctcttc aatcaagaat ttaatgacct ctattatttc ttgagtgtcc ttttctctta agaagtcagt gataatgctg actacccct gaccagctcc caaccaacca aagcataccc attgaatagt tacctgctca actaaatcat ccatctatt tgaatttaga ttattatga ttattatga tcatcacac cttcaatta aacatattc atttcctatt ttaattacat gttaccttc	tgggatatgg ttttcttctc aagaaggtga ttactggtcc agggtcatga aagaggtgttg tatattgaca tctatgaaat caatgttta cttcceggaa cccaaacaat accaaccaag aaccttaatc aatatttta attcattagc ggctgaggtt ctgcataaat agaacttaaa ggtcagtaaa tatcccgcat ccagaaatgc ccacacatgt aaaaaatgga ttgactagt ctaagttact aggtgactga aacccagga aacccagga aacccagga aacccagga aacccgtgag	cactgtctca tcttcgtagg tttatattt ttttttccta attcaattct tgattctatt aaatcaaata attcccggtaa tacattgtct cacagacctt tgcaatgaac caaccaagga aacctggtaa tcaccccatg ttcttgttga acttaggtta cctgacgca acattttcc tttcagtgca tctaccatt ccctaactt ccctaatt ccctaatt ccctaatt ccctaatt cctactatt ccttactat ccttactat ccttactat tcactctat tcactctat ccttactat tcttcttct tctaccatt tcctactatt ccttactat cctgattt taaatctaatg ctacttctt tttcagcctt	cccactgaca agatttggaa gaacagaagt gtctttctct gatctttcag ctaggtgctg gttcctgctg agttttactt ttgttagaat ttgttagaat actaacaaca aattgtatcc tagatatttg aggtcctgtg gatagtttta ttctaaagaa ttcttctgta cagaccaaat actacaatac actacaatac attgttcc tgtg gatagtttta ttcttctgta cagacctaaa actacaatac attgttgcc tgtg cagacctacat tcttctgta cagacctacat cagacctacat cttctctgta cagacctacat cttctctgta cagacctacat gcttacacct gcttaaagat ggctgccc

FIGURE 2-J

34441	tgattcctaa	gccaacattt	ccttcaccca	cccccatctg	attgtaaaca	gatcacttta
34501	ttttctttt	tatttqqaqq	tcataaactg	ttagtagaga	acacttette	cacacttctc
34561	atgtctcctt	tatatgcagg	gagcacagtg	agtgaaactc	cagacctctc	tacccctttc
34621	ctcactctac	tcctataaaa	ggggagtggt	taatttata	ggtaaatttg	ggaagaataa
34681			tccacccttc			
34741	gcctgagttt	tcctatattc	ctccatgtta	aaactattct	gggcagaacc	cccatctaag
34801			gggtgggcac			
34861	taccccactt	ggctaagaga	cctaaagcca	tgcctgctgc	ttagctgctt	cagaaataag
34921	gcaacctcct	taatctctat	atttactatt	ttatttatgt	ttccacctgt	ttagaacttg
	-			_	_	
34981	ggttctggaa	agggtcacta	tttattggtt	aactccctca	gagactccaa	aaccaatgaa
35041	caggtatttc	cccagctttt	tgcaaccagc	ccccagccct	tccccgcaaa	ctctatagat
35101		-	acaaaaattt	-	-	-
	-					_
35161	ttctgtataa	agcatgctgc	cccattgtct	tggtaacccc	gttattcatt	cttgctttct
35221	agctactgac	tcttctcaga	tataaacatg	ctcaagtatc	tcccqtcaaa	aaacaaaaca
35281		_	accttattct	-	-	
				_	_	-
35341	cttgctttga	cacagtgcac	tttacagaaa	tgtttcttgc	caagatcacc	aacacctggc
35401	cccaaatctc	cagatccact	tgacattttc	ccatccttat	ttactggacc	catctgtggt
35461		_	-			
	-		gtctttgctt			
35521	ctatgctatc	tcctgggtct	cctctttccc	tgaccaagaa	agagaccgtg	aaacttggca
35581	tttgactccc	agccctttcc	tctcccctga	gtgatctcac	ttetttetet	gaggggagtc
35641			ctccactgtc			_
35701	aatctgacca	tgttatttcc	cttctcagaa	tcagccagtt	gctttgcagg	aatgagtcca
35761	-	-	cagctgaccg			
	-	-				
35821	tgacccccaa	cctgctatat	cccatggtct	aatcttgacc	aactggttgt	tgttttaatg
35881	ctccacaatt	ttttctggtc	tcttacctct	qcaaatattt	tccctttctq	gaataatttt
35941			tacctggaaa	-	_	-
		-		-		_
36001			ccatccctaa			
36061	tattttatt	attcattcat	gtgtcaaatg	attgtaataa	ttttaagtga	ttatttaact
36121			ggaggcagga			
						-
36181	aatgtagcac	aaagggtttg	tagtacaaag	ggtttacttt	tatggaggca	gtattaaacc
36241	tctagccatt	ttaattaatc	atctggggaa	caatactttq	aaaaaaatgt	ttttaattgt
36301	-			-	-	_
		-	ggacatacca			
36361	tccctgtgtg	ctcattatgg	accaggaact	cttctggggg	tagaatacct	ttgaacacag
36421	tctccacttt	caaggaattt	acagtttagt	gggagagata	caggtaataa	acaagtgatc
36481	_	-	ttcagggagt	_	-	
36541	ggggtgggat	gaggagtgag	tggggtaagg	ggttcatttg	gatgtcaggg	tcataaggac
36601	accadccatt	tgaagatctg	agggcagcag	gtgcagaaat	cctgaggcag	gaaataagta
	_					
36661		-	gaggagtttg			
36721	gttgggtatg	tggtcagaaa	agtgggtctg	agctgggtca	tgtagggtct	catgggccat
36781	gacaaaatga	acttatttct	tactttaagt	accactagga	agtgtctata	gtagaaataa
36841	-		_			
		-	gattgttctg	_		
36901	aagagtggag	acagttggat	cagctaggag	gctctggtgg	caatttaaac	tgtagatgag
36961	gtgacttgga	ccaaagagca	gcagtagaga	caaqqaaaqt	ggtcagaaat	caagattcaa
37021						-
			gcctgtaatc	-		
37081	tcatctgagg	tcaggagttt	gagaccagcc	tggccaacat	ggtgaaaatc	catctctact
37141	aaaaatacaa	aaaattagcc	gggcatggtg	gtggatgcct	gtaatcccag	ctactcggga
37201			ttgaacccag			
37261	tccattgcac	tccagcctgg	gcaacaagga	tgaagccacg	tctcaaaaaa	aataacaata
37321	aaaaaataaa	taaaataaaa	tagaaagaaa	gaaatcaaga	ttcattttag	agataaggag
37381			ctctggagtt			
37441	ttgagatgga	gaagactggg	gaaggagtgg	gttttattta	agacatgtca	agtttgatat
37501	gtctattatt	aatacatcat	agatgagact	gtgactttat	tacagtcgta	ctgagttctg
37561			cactcggata			
37621	agctggaggt	ataattgtgt	attcattggt	gtgtaattgt	tctttaaagc	caagggagtc
37681	aatgagatca	gctagggaga	gagtataggt	agaaaagaag	gcctaggacc	aagcacagag
37741			agatcaacat			
37801	tttttttt	tttttttt	tgagacaggg	tctcaccttg	tcacccaggc	tggagtgcag
37861	aggcaccatc	acggctcact	gcagcctgca	cttcccaaac	tcaagtgatc	ctcccatctc
37921						
			ctgtaggcat			
37981			ggggtctcac			
38041	ggttcaagca	ctttccccca	ccttggcctc	ccagagtgct	gggattagag	gcgtgagcca
38101						
			ttgagctgag			
38161	aaaaaatta	aaaacaaaca	aaacccagaa	aaaaataaga	gacagtggtt	gtacgtggcc
38221	tgcagagcct	aaaatattoa	ccacttagag	ggtgtgcaga	ggcgaggcta	асаааааааа
				J J - J - J - J - J -		J

FIGURE 2-K

20001					•	
38281					taccagagca	
38341	gggcgccacc	tggtgtttag	aggagggagg	gctgagaaag	cccgggagag	acaggcgggt
38401	cgctggtgac	ctggacagga	acagtctcag	tgaaggggat	ggaaccccct	tcagaaacgg
38461	ccgagtatag	aggacagtag	gagtctggga	ggtagaaaca	gcaatgataa	gtcactcgag
38521					ttagagggga	
38581						
					taaaagatag	
38641			-		gagaacggga	-
38701	gaaagggcat	aacttgagga	gtgaaaccct	gcaacctgtt	ttcaaggccg	ggcaggagaa
38761	ggaatgctta	caacggaggg	gaggcagagg	tgtggRcaca	gatgcaggcg	ggccggcgga
38821					tctaattttt	
38881				_	ggttcccacc	
38941						
					aatctcaggt	
39001					aattattata	_
39061					cggtaaaaaa	
39121	tctccatgtg	gccagagaat	tactggagtg	ggcattctag	aataagtgag	ataggagatg
39181	gtgctctggg	agggaggtgc	ttgaaactag	ggtttgggag	gaggtactgt	tactgaggac
39241	aagatctggg	tatqqccata	ggtgggaaaa	cagaggtgga	ctggaggata	agcttgctgg
39301					acttcatcca	
39361					aagacagttt	
39421						
			_	-	cgaaaggtaa	_
39481					tggaaatttt	
39541		_		_	aacacaactt	
39601	gagtgagtag	gatggatcga	gagcagcatt	ttcaatagaa	ctctctgcaa	gaagttccac
39661	tatattcagt	ggcgcaatgc	ctgtttctgc	acaatgcttg	tgccactgaa	tatagtagct
39721	gctagctatg	tggctgctga	ggacttgaaa	agtggctaat	gtgactgaag	aattaaaatt
39781					catatgtggc	
39841			_		ttataatgcc	
39901					tgttgtaacc	
39961						
					atcatcaagt	
40021					agacatgttc	
40081					agagtaaggg	
40141	gaatatgtct	ttagggaaag	cgttggggag	agcagtaaat	gtcaacttgc	tctctttgga
40201	ctcagacaaa	tctgggttca	tatcccagct	ccatccttgc	tgtgtgcctt	tggggaatgc
40261	tacctgtttg	atgctgcttt	ctcatttata	atacagagat	aacaacagta	agaatcttgg
40321	gagattagac	atacggagga	ttattataac	accqtcattt	caaagagagc	tagcgcctta
40381					actatggaga	
40441					tcaaaaagta	
40501					aacagagaat	
40561					tattaaagca	
		-			_	
40621	_				tcagatgttt	
40681					ctaccatcac	
40741					gcttccaatg	
40801	ttgaaagaaa	catagaaaga	aactttagga	gggaaaagta	aaagactcat	tttacaattt
40861	gagtgaaaaa	tgagttgaag	ttaccttaga	aatagtaaca	agtcagagtt	gaaatataca
40921	ttatagtgta	atctagaata	tcatagaaat	aattatagaa	gcctagatag	agaaggaaat
40981					ctccctgcag	
41041					tgttgttatg	
41101					taatgcaaga	
41161					tgtgactatc	
41221					gcaatactgt	
41281		-			tattatttac	
41341	actgttttcc	ttttacagtg	ttctttaccc	cttctgtaag	ttctctctgg	gtgactgcgg
41401	gagaacactg	ctaacaccct	gaagtcagag	acaaacttca	aagctgtgtg	ctaatagcac
41461					ttcaagttaa	
41521					tagctttgaa	
41581					tgttgaaaac	
41641				-		-
					gcatattaca	
41701	_			-	gcaacagcaa	
41761					atccctaaac	
41821	aaggagtatt	ttacttactt	ttaaactata	caatctcatg	ttcatctgat	aagWttttaa
41881	tcattctgtt	accctttgga	gatagaggta	agatgacaaa	ataatgtaat	tgctagttgt
41941	atggctactq	ttggtacatq	tcaaaatgat	taagctctgt	gggtactttt	ttggttttgt
42001					gctgtaggtg	
42061				-	gcacatgcct	
	J = = = = = = = = = = = = = = = = = = =				,	

FIGURE 2-L

```
42121
       ctacttggga ggctgaggca acagaattgc ttqaacccag gaggtggagg ttgtggtgag
42181
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       caacaacaaa cccacttaag tttgttttct aaaacacaga gtcaaattcc agtaaggtca
42241
42301
       gatccattca aatctatttg tcgtaggaaa gactataaat aaaacattgg attttaaatt
42361
       ttgttggaag gaattaaaat ttcatgatat tttgcaaaag tatgcaaaag aatggtgaaa
42421
       gtagtgttta gtaatttaga agtccaagtt aatatgaaat aagagtattt gtgatcatga
42481
       agaaccagtg tacataaatc aaatctgtat tacttgacag tgctccaagc atttgtccat
42541
       ccatctgttc atcaatagat gtaacaaatg caagttattg tgtttggtgc taggaagata
42601
       caatttgtgc aaggctggag tgctgccctt ggatgctcac ggtctagtgg ggttagacta
42661
       42721
       cacacagagt tatgcattca gcaatcaaga gtgactccac caggcgcggt ggctcacgcc
42781
       tgtaatccca gcactttggg aggccgaggc aggcagatca caaggtcagg agatggagac
42841
       catcctqqtq aaaccccatc tctactaaaa atacaaaaaa ttaqccqqqc qtqqtqqcqq
42901
       gtgcctgtag tcccagctac tcaggaggct gagacaggag aatggcacga acccgggagg
42961
       cagagettge agtgagetga gategegeea etgeaeteea geetgggeaa eagagegaga
43021
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43081
       tgcttagtgt gatgaagcct ggtgatcatt ccagtgatac aaccaatggc tgcaccagta
43141
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43201
       gagtttcact cttgtcactc aggctagagt gcaatggcac aatcttagct cactgcaacc
43261
       gctgcctccc ggactcaagc aattctcctg tctcagcctc ccaagtagct ggtattacag
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43381
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43441
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43501
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43561
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43621
       43681
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43741
       agtactcatg gatgagagag atgagcaaag gagacaccat gagcaaaggc aataagtaga
43801
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43861
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43981
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44161
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44581
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44641
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44701
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45061
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45121
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45421
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45481
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45541
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45601
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45661
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45721
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45781
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45841
       gggtcagatc agagggagtc ctgaatgcca cgtgaaagag cataggctgt ccacaggata
45901
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FIGURE 2-M

```
45961
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46081
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46141
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46201
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46261
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46381
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46441
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46501
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46561
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46621
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46681
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46741
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46861
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46921
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46981
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47041
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47221
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47341
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47401
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47461
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47581
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47941
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48001
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48361
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48421
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48481
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48541
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48661
48721
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48781
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48841
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48901
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48961
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49081
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49141
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49561
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49621
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49681
       aatactactg tgatttggtg cctacactca ttgctgaagg aaatgttaaa tttccactgg
49741
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```

FIGURE 2-N

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49801
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49861
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49921
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49981
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50041
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50761
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50821
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52561
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52621
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52681
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52861
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52921
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52981
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53041
       tccttttctg gaggcttgat tttcctacaa ataatccgta taaaggctag attaaatgta
53101
       tgagaaaaga atgttgtata agcacagata ggggtgggtg ggcataatgt atttcctaaa
53161
       cgtaaatctt cctggcatgt gaaagttcta taacacatga aatcatccca aaaataatgc
53221
       atgaaaggta atgtgatggc cagttttact tttaaaaaaat tttttaattt ttccgtaagt
53281
       tattggggta taggtggtat ttggttacat gagtaagttc tttagtggtg atttgttaga
53341
       ctttggtgca cccatcaccc gagcagtata cactgcacca tatttgtagt cttttatccc
53401
       tccccactcc actcttccct gcaagtcccc aaagtccatt gtatcattct tatgcctctg
53461
       cgtcctcata gcttagctcc cacgtatcag ttaggacata caatgtttgg ttttccattc
53521
       ctaagttact tcacttgatg qccagtttta gaatgacaga atgctataaa atctggtgct
53581
       attectatat catcagteac agtteagtee caaccaactg cettteatat gtaatttatt
```

FIGURE 2-O

```
cttcRaattt ttactgtatc tcaagttgct ggactagaaa attgcccatg tctgcttatc
53641
53701
       attttgacat tgtgctgact gaagagctta aagtttcaaa gagaaaattg ttgaaaaaat
       aggcagacct tgaaatgcac catgcttcca gtggctcctg ggtggtccaa ccactgctga
53761
53821
       aattgaatta ccacagagat ttcaaggatt attctcactg gcctaacatg ctgttttcag
53881
       tgcttcattc caaattccca tcaacattga tggcacttgt gtacaaataa ctgctcaagc
53941
       agatttggct cagcgtgaat ggagctcttc tccgagaagc tgattccatt ctctcaactt
54001
        gggagattct gtttcagaga tctcacacag tatttgtcaa aaataatgcc caactcaaat
54061
       gtggcctctg aagaaagggt ttgtgtgggc gtctgtgtgt atgtgtgtgt ttttgtgtgc
54121
       gtggtgaagg acagaatgtg atctaagagc acagaaatga ttcaaggcta ggacaccacc
54181
       ctgtatgcac agcatgggcg acatgtactt acttttggga tttgaaggac tgatctatgg
54241
       gttatattta agaggaagag aagttettta gtetggeatK tggtegaatg cecaettgee
54301
       ttgtctgttg cttttttggc tcagctcttt aaaaactgct acaatacgtg aaggagctgt
54361
       ggggtgatct gccacacaga gcgctggtag acccattata cagagtttcc tgaggatagg
54421
       gaagtggttg ttttaaactt ctctcctttc atccagtatt ctacccagag gattatgcca
54481
       tgattttacc gggaacgttt ttacactctc caggaataac ccaagcaagt ggccctctca
54541
       gatggtcaag gaagagaatg cagaaatggt attataacaa acacatgccc aqaqqctttt
54601
       tattggagaa gggtaatccc ctccctacag agcaaggctc ctgtagtcac agagcccact
54661
       gtgcagcggc aatgtggtca tcagtccctt cataaactgt gggctctctg aatggacact
54721
       gtcttctgag tcattatact ccttcctgca attccagtct tcttcttggc ttgttccagt
       gctttccaga aaaacagtat ttgtggtcat tttaaaatta aatatgcaga aactataata
54781
54841
       aatcttaata ttactcctcc ctgcttttaa aaaatacgga cacaagcatt taaaatttta
54901
       gaatttttaa tgagttgatc tttgatccag tttaagttat atttgcaaag cacaacacc
       ctagttttta ctttggcttg atacttcaga gtaaagctct attgttattc ctatgtcatt
54961
55021
       aaacttatta ttttttgata tggaaacttc agttgaaqtg atgaqaqaca qctqaaaaat
55081
       gtcatgccta taagaaaacc tcttctttt gacaaacgcc agagggcgct aagatacagg
.55141
       tagatagaga tatatagcta ttgatatact gtatatatga ctggatcagt qqcaaaqaqq
55201
       aacatctatt cctttacatt gtaagatgac tgaattgaac ctatagtgat ggcttatatg
55261
       aatgtttatt tttcctgtaa ctttgcctgt ggaaggaaaa taatgatata ggcacgtggg
55321
       aaaacaggtg cgcctcggtt taagaaaagc tgaaattaaa aaattacctt gtaactgtaa
55381
       actagttggt ggtttacatt acaaatgtat tagtcatttg ctcatctcaa cagaaaattc
55441
       ttcttgtaca tatttgacat aaaagtggca aggatgtctt ggtaatatag tacataaaag
55501
       gtagatgacg tgaggatgat aaccaatatc tagggtgatc atatatttta tggttcaacc
55561
       tggggcattt ttgcacatga aagggagaac ttttagtaat tattctggga cacaagcata
       aacagcaaca gtcctggaca aaccaatagt aggaatattg gtgtgctact tcagaatttg
55621
55681
       tacagtaata tctacttctg cctacctcct aaacattaat gaccctaaat tcctttccag
55741
       ccctgattac cctctgaatt gcagattcac atctctatct gccctctgtg ccatcacaga
55801
       tatttcactt ttaaaatgtc cagagtaatc cattcgtgtt cgtagtctta gtcatccacg
55861
       teteaggatg gagettetet etttgecatt teteacetee aactggteae caagtetgtt
55921
       tcattccacc tgccactctg gcctctcttc ctctttcca tgaccacagt ctcagttcat
55981
       ccttgttctg tgcaaattct tttcaaatga aggcaagaca qcaacccact qctctcttct
       ctagaccact gtggcggtct cctaagcagt gcccctattg tcagtcttca ctggctagtc
56041
56101
       tatcatccac actgcagagg gacgtttcta aagtgcaaat ctaatcagct cattgttctg
56161
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56221
       56281
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56341
       tgcttcacat ctatctgttc tcatagtact taccccttgc ttgggagtat ctgataaact
56401
       cctactcatt ctcaatatac aggccaatac tcaccttctc tgagaagcct ttcctagtgt
56461
       acccatgcca aaatatttca ctatttcttc cttagagtta ccgtttagcc tgtaccatgt
56521
       ttctcttatt aaatgctgta tcataattat gtttttactt atctgtttcc ctgctagact
56581
       gaagcatctt gaaaacaggg ccttattata tttcaggata cctagcacct agcacactaa
56641
       ctgtcacagg ccgggcgcgg tggctcacgc ctgtaattcc aqcactttqq qaqqccqaqq
56701
       cgggtggatc acgaggtcag gaatttgaga ccaacctgac caacatggtg aagccccatc
56761
       tctactaaaa atacaaaaag tagccggacg tggtggcaca tgcctgtaat cccaqctact
56821
       caggaggctg aggcaggaga attgcttgaa cccaggaggc agaggttgca gtgaqccqaq
56881
       attgcgccac tgcacaccag cctagatgac agagcgagac tctgtctgaa aataaataaa
56941
       taaataaata aataaataaa taaatattat atacagatgt tcaataatgc ttctggaata
57001
       gaaatgtaaa cagttatccc tcagcatcca tgggagattg gttccaggac cccacagata
57061
       ccaaaattca tggttgttca agtttcttac atagaatggt gtagtatttg caatactata
57121
       acctatgcac atccccctat atatattata tctaaattac ctctaatacc taatgcaatg
57181
       cctatacatc acttcgttca tatggattca aagtaatact cagcatatgg taaatttgta
57241
       ttttgcgttt tggaactttg tggaattttt ccaaatattt ttaagccatg attgaatcta
57301
       tgaatacaga gggccaactg tacttaattt tctcctgcct ttttggcagg accagagatg
57361
       aggttcagat gcttttgatg cttggagata gcctactttc cttttagtcc tgtgggtctc
57421
       tctgcatgag ttgtcattca ggtagcttct gctgtggttc aaggagtaga agtggaggag
```

FIGURE 2-P

```
57481
       atggtgcagt acctcctgag ccgcccttgg agactgtgct ttgtaactct gggctctgca
57541
       gtggaccttc aagatccaga tggtgagggg cagcactgag attgggagag ggccacatct
       cacctctgcY tgtagcccag tgacactctg accttgagca cagtggctct gggaacatgg
57601
57661
       aaaaqtagaa tcttqqcacq atctttqqaa ttttcattqc aqacaaqatc aqcaqcacca
57721
       aagggagcat cttttgagcR ctgggtattt atgaacacag atggatgggc atcctttagg
57781
       ggaatcccag acataagtgg tgggaaaggg ctgtaggact tcccagtaga aggctggaga
57841
       atttagaaag ggaagttcag acaaaacccg tagctaggtg gatgtaactt gtgagatttg
57901
       ggtcacatga aatccatgtg gcaggtaatt tgcaaaaagt ggtattactt atcaagttca
       aggggcaata ttactgattt ttatacacaa tgaactcctt tactctattt aaagccaaat
57961
58021
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58081
       agtcatggac ttttctagag caagggcttg aagaatgctt aaaaagtcat taagaccagc
58141
       cctgggcatt tgttttgaaa tgtttcagca ggtttttgca ccatcaggac tgtggtcaga
58201
       acattatatt caataaaaat agatggaaac agctgggtga aagttcctag tagctttatc
58261
       atcaacctcc tgtgttggtg gtctgccctt cttgtccggg agccttttct actgtgatgt
58321
       taactttcaa gcgtacatta tttcctctcc acqaaaqcct qcatttagct tacattagaa
58381
       gtggggaaat tgtacaacaa aaggatcagg aattctgcct gggctgtggg aggagctaat
58441
       cttggtgaaa acatttcctc agatgttttc ttgaaaattc tttcctcaag aaagaattaa
58501
       ggctgggcgt ggtggttcat gcctgtaatc ctagcacttt gggaggctga ggtgagctga
58561
       tcacctgagg tcaagagttt gagaccagcc tggctaacat ggtgaaactc tgtctttact
58621
       aaaaatacaa aaattaqcca qqcqtqqtqq tqtqtqcctq taatcccaqc tacccaqqaq
58681
       gctgaggcag gagaatcact ggaacccggg aggcggaggc tgcagtgagc cgagatcacg
58741
       58801
       agaaaaaaga attaagatag ttttagcaag tttcaaccat atctgatacc aacatgaagt
58861
       aacaatgagt ttccacaaat atttatttct tggtatttcc tttactattt aagagatttc
       actqctcttc aagcactagt ggttggatta atatgtgcca ttgccgggaa ctagggacac
58921
58981
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59041
       tattttattt ttttaaaatt tttgttgatc atgagaattg tttataatgt caactaccag
59101
       ttttggaaag cggcaattct gaagtactct ggccagtact ggtggaatat cattagaaaa
59161
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59221
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59281
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59341
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59401
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59461
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59521
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59581
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59641
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59701
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59761
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59821
       cgcaaataca cagaaaattc tccacaaaca tagcttttca agaaaaacaa tcaaaacgag
59881
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59941
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60001
       gccagcctca catcagctaa atcctttctt tgaaggctgt cccagaaact gaatacatac
60061
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60121
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60181
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       ccttaggggc taaaattctg caagctccac tcactagacc agggatgctg gtcaggggct
60361
60421
       gggttgacca tggggaaagg gctccttttt ctaatttgta caaaggtaca atataggctg
60481
       gtggtggccc tgggtgtctg agctttagaa ttttaatttt gttaggtctg gaagaactga
60541
       ccaacccatc agtattgatg taaatggagt atagaaatta actttcctca ttttaatgca
60601
       agtctcttta tttcagaccc ctggctttct cctttttcat tttcgaggag ttgggtctaa
60661
       atgcggcttt actgagatta cttgggagtg agcccttcaa tcttgacact gacttcctgt
60721
       ctgccataat gattcctgtc ttgaagttgt gcctttgagg aaagagaatc tgagtggttt
60781
       caggaggcct ggatctgggt gactcccctg gSgggtagtg tcttcatgtg ttccaaYagg
60841
       taattttgga caaqaacaat ttcaaagttt agaataaaat tcacaccaaq attctatcca
60901
       ggctacaata caatttttgt ttttgcttac actttacata tttggccaac tgctatggat
60961
       atcatttgca cctccaaaaa gcaatgagta cttagtatgc caggtactgt tctaacttct
61021
       gtacatatat caattcactg aattctctca acagctcatg agatagaggc aataattatt
61081
       caggaaactg aggaattata gaggttaaat aacttaccta cggtcacaca gctagtgggt
61141
       gtcagagctg ggatttgaat acaagcaacc tagtttcaac gtccatgctc tcaatcattt
61201
       tcctaaattg actaacaaag caaaacaatg tgctggtatt gaattccatt ttccctcagc
61261
       taatgattat tattttaaaa atatcctttt gttgtgatag aagcccatga tttagtggga
```

FIGURE 2-Q

```
61321
       aagaaaactt gtaaatctta gctatacaag gacctttata tagtcatccc ttggtagttg
61381
       tgggagattg gtcccaggac cccgtgggga tgctccagtt cctgatacaa aatggcctag
       tatttgcaga taatgtatgc acatcctcca gaatacttta aatcatctct agattactta
61441
61501
       taataccact tataatacta acacaatgtc aatgctgtgt aaatagttgt tacactgtat
61561
       ttttcttttt taattgttgc attattttt attgtttta taaaatatat tttctatctg
61621
       tgattggttg aatctgagga tgtggaacct gtggatatgg agggccaact gtattactgt
61681
       ttttgttttt taatctgttg gctgctttta acttgtttac taggtattaa ccagtagagc
61741
       tatgaggaga aacaaggtgt gtgtgaatgt ctgcgtttga ctgtgagtat gagaaaatga
61801
       61861
       gaagaagaag gatgcttcta gacaaactca aaaccttgca aattaaggct aaggaaatgg
61921
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61981
       aaataagtgt ttctctttcc tcagtagttt tgggcataga tactagtctt ttagtcattt
62041
       cattleccat ataacetett ttgtagacag tagttettgt tttggcccaa geteatagtt
62101
       acaatcaact tttcataatt tcctatgaaa ttacttatgt tttctatgtt agacctacag
62161
       gtctaacaac ctgtaataca ggtatgagac tcagatacaa aaaggggtag aaggaattac
62221
       tagctgcggg cctgtgaagc caggatgaaa acagagtgga aagtagaaca ttcctgcgta
62281
       ctttgaggag gtagatggtg gcgttgattt cattcacgtg cctatgagcg gcggcccag
62341
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62401
       catcagtcag gtcccagacg cacttatcac agcctggagg tgaaacattt cttcagaatc
62461
       acaagtcaaa agcatgctaa aggcaggccg ttttagcaga acataaatct ctatttcctt
62521
       ggttaatacc attittatti tigtctcatg aagagcigta attitattit tigtcaggcit
62581
       tagtatettg ettggeatta getagtgaag atggetattg getagaeget eeteeteee
62641
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62701
       acageteete etcacageee eactteetgg eaggatgaac actteageac egggaggtet
62761
       gaggttatcg ctgcgagagt cgcttcctga catctgatga gggtaccaaa gttcaggctg
62821
       aacgtgggca catggggagg caggtcccag ttcctcatca cttctcactt ttcacatttg
62881
       agttectetg accaetgtea teacetecag aacceaggge ceteetgtga caeaeteaca
       aggatggcac tctgtgtttc agaactgcct tgatcacctt ttgcaacgtg cctgttcccg
62941
63001
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63061
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63121
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63181
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63241
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63301
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63361
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63541
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63661
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63721
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63781
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63841
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63901
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63961
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64021
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64081
       gcttaaaata tggcaatatt ttcctggttt ctagaaacac tagctatcag tgtataattc
64141
       atcaatggga attaattaca ttcttccttc agactgtgta gaatctacga tacagagatt
64201
       acgcccttca tccgattaag ctccagccca atgagatttt caaaggtgac cctgggcaaa
64261
       attgaatcta agttttctag gatttctctc ccaactcttt gggattctga catgacagtg
64321
       caattgcttt agtccaaaaa tgtcctggta agtttcacaa gatactaaat gaccacgagc
64381
       tcatcattca actggaaatt gaaagccatc ccttccttgc agactgatac tccagtttaa
64441
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64501
       tgaggaggcc caggagcgat tcttggctcc cactgcgctt gacccttggc aagacagact
64561
       ccaaacctcc aaatgacagc tatgagtgca ataagaataa tgtgctgcaa ggaatcagga
64621
       acatttttac atgaatttag aagacgtggg agcccattat tcatctactg atgatttct
64681
       gtaatgcctt ttggaaaaag caaaaacaaa agcccaatct catcagactg ttcaatttcc
64741
       actgagtttc tgggtgggaa ctaatttgta atatttaaag aggaattctc ttaccatcta
64801
       tgctagcaat taactggaat agaattgtgc atttcccccc acttcttaac tgtctttaca
64861
       gaataatcat aaaaaccagg ttcatgggag atctatttat tacatttcat ctgtttaatg
64921
       ttccacaaaa tgcagattta ttaaatcttt cagcaagatc atgctttatt gcttctaaaa
64981
       ttagcttctc ttccaagagt gacctgcatc tttatagttt aaacacaaat ttagtaaatg
65041
       ttttgagaat caggatgtca acctttcagg ctttgatttt gccaacatta tttctgctgt
65101
       ccgccttctc tctctttagc ctgactagac acagtgctcc ttcctttctg ctgtcattct
```

FIGURE 2-R

```
65161
       cagtgttatg cctctatgca cattgctttt ttgtagacat gtttactttt attgtgactt
65221
       ctgcagaaca tatatgttgc attttttKa tttaaaactc cttactcctt gaatcttttc
65281
       aagtggaaat ctgtttcagt gaaagaattc cttatagagg catgccacag gagtacaata
65341
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65401
       ccttcctgta ctcttagagg aaagcaatgt cacctcactt ttgaagagct tcactctatg
65461
       tggcaaatgg atgaataaga tYtgtgcgtt tcagtctaac tgaagcctaa ccagaaagtt
65521
       ttctatgcta tctttgaaat atttacctct tataatttga ggaaattgga ggatggtggt
65581
       gattaaatgg tacccttgac ttgctaatct attttatgga aatcttgatt ttaccaaaca
65641
       taactgaacg agagatatag ccctctgaat aagaaaactg atttgaacca tgcaaggttt
65701
       65761
       ttctttcttt ctttctttcc tttctttctt tctttctttc tttctttctt tctttctttc
65821
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68941
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FIGURE 2-S

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FIGURE 2-T

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FIGURE 2-U

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       aaatcccttg gtctctcaca cccttaccaa ttcctcccta ctcctacatg atatttactt
78601
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78661
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78721
       tctaagtccc ttcagtgctc ctttgaaccc tggatccact tacacagaga aaaaacatgg
78781
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78841
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78901
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78961
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79021
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79081
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       cttctcagtc catagggaat gatgttctaa aggtctcata tcccaagacc aggtaattta
79141
79201
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79261
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79321
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       atgagagaat gagtgaaacc agctatgagg aagttggagg taatatatt aacaatatat
79381
79441
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79501
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79561
       tcaggacata cttgagtgaa aataacagaa cagttaatgt ttgcgttttc taccctcact
79621
       qtqaqtacca tcccttttqc acatqttatt aataYtatca tacatqaaaa attacaqaqc
79681
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79741
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79801
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79861
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79921
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79981
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80041
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80101
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80161
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       gggctggtaa atgaatcaag gagtagagcc aagatctgaa cccaggcttc ttgacttcaa atcccatgga aagtgagatc tagggagaaa gtaacttttc tgagatcaca caggtattat
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80281
80341
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80401
       aaaacagtat ttagcctttg gttcctggca cagactcctg taattcttgg aatttcctga
80461
       gggaaaagac tgtcttttgt tattcataac aggcaccttt caaccatatc tgagtttatg
```

FIGURE 2-V

```
80521
       ctaatgaagt gactcacagt ggacccttgg ataccttgag agtgggagcc tatgaccaga
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       ggcaccaccg aggaaccaaa catgtaattg gacgttgtga atttcaaccc tccccacccc
80641
       caacctccag ggaggagagg ctggagattg agttcagtta ccaatggcca atgatttgac
80701
       caatcatacc tacaacatga aactttgata aaaactcctg agcaacaagg cttggggggc
80761
       ttccggttgg tgacacgtgg aggtgctgag agcatggtgc tccagcagag agcctggagt
80821
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80881
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80941
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81001
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81061
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81181
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81241
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81301
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81361
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81421
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81481
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81541
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81601
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81661
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81721
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81781
       aacaaaacaa aacaaaacaa aacaatacat agactgatca ttagaagaga ccatcctcct
81841
       ttaggactta cttggccaag tggggcaggg gacaggggca cggctggcag aattggggtg
81901
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81961
       tgttccgctg gcagtgctat gagacaaaag acaagaagat tgacaaggat gcgaaagaaa
82021
       ttttagagac agcacatcta agcatcatgc aatacttttt caagcaaaag ggacatcaga
82081
       tcagacagca cagactgtat gcggcagtac Rgattagcat gaggagtcac actggcccca
82141
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       gtgctagtag cctggggact ctagagtttg tgtgcagagg agattattca tcagttactt
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82261
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       tattgacttc gaatgaatat gaaatgagaa accaaccaac caaccaacca aacaaacaaa
82381
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82441
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82501
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82561
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83461
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83761
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83881
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83941
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84061
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84121
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84181
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84241
       caaaagcaaa gccaccaaat ttcttttgcc ctctaactgc tcagaatgca agtatgaact
84301
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FIGURE 2-W

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84361
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84481
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84541
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84661
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84901
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84961
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86041
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87061
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87121
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87241
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87361
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87481
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87541
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87601
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87781
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88081
       agttagaget cettetgggt tetatgtact taageeteta gggetgggat gaaatatgga
88141
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```

FIGURE 2-X

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88381			ttagccacta			
			-			-
88441	-	_	ttgcttgata			_
88501			ggcttaggtc			
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88621			tacagaggtc			
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88981			tttttatatt			
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			atatcttttt			-
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89701			gtcatttctt			
89761			cttgcataat			
89821			attttaataa			
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89941	tcactgggat	taaaataaca	ggaaaccgga	gatggaagca	ttagaaagga	gtagactttg
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90121			ctctgtccct			
90181			gcatcttaat			
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90301	gcatttaaat	aagtattctt	atagtttatg	caaaaatact	cttqtaqttt	tggaaaacct
90361	-	-	tgaagaattt			
90421	-		gttcttataa		-	
	_		_	-	-	
90481			ccattttcac		-	
90541	-	-	ttctgctgga	_	_	
90601	tcatgcttca	atgaagaacR	gtctattgga	gaattcattt	cagttaagga	aaaaaatagt
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90841			aactatacga			
90901			tcccaccgcc			
90961	aaataataaa	acaacaacat				
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FIGURE 2-Y

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FIGURE 3-A

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1861
       tatttttgga aacagagata cggagagaga gcYacagatc tttacctatt tggggtaggc
       agagaaggac caaggagggc attcttgttt tattagactt agtttggttt aaactttttt
1921
1981
       ttttttgaga cggagtctgg ccctgtcacc caggctggag tacagtggca cgatcatggc
       tcactgcaac ctccgcctcc tgggttcaag caattctcct gcctcagcct cccaggtagc
2041
2101
       tggcgcgtgc caccacgcct ggctaatttt ttgtagtttt agtagagaca gggttttgtc
2161
       atgttagcca ggttggtctc gatctcctga ccttgtgatc caccagcctt ggcctcccaa
2221
       agtgctggga ttacaagcat gagccaccgc acccagccct agcttaaact tttaattgaa
2281
       ataaaatata tagaaaatgg aacagatcat gagtatacag cttaatacgc acacctgtgt
2341
       aaccagcact gagattaaaa aatgggacat ttctggttcc ccagaagtcc cctccttgtc
2401
       tgtggtctag atttgattta taccggatct aaaatagcat ttgtttccaa atatatttaa
2461
       gacattgcca ggggaaaaac aacaactaat gtggggtgat tttgtcagtt ggggtcacac
2521
       agctttcaaa aaccaactca agtcattttc cattctttt ctccttcaaa gctgtcaatt
2581
       ccatgccagt ggataacagg aaccacaatg aaggaatggt aagttgcaat gtcaatctta
2641
       gaatctagac ttgtgtctag actctagatt ctcccagtcc ctattatacc aaaccaaaca
2701
       cacgcatgac ataatcttac aaaqccaqqt tttcattqct qacaqaatgt qaqcaaqqqa
2761
       tgcccctcct gcactgagct cctatStcct gtcaggatgg tttagcaccc ctgaggatag
2821
       ctgtgccatt ggttcagaaa tgggtgttta tttcccttct ccagataatc ccaactcagt
2881
       gccttcttgc attattctgt gtagaagttt ggaagatttc attctgttcc tgtaaatctg
2941
       tatctccgcc ctaagaatac tRcatcagcc caggtcacgt aatcaagtct tccttgacag
3001
       cagctctggg ttgagtagtc tgtcatccag tgataccagc ttctccaacc tgctttcggg
3061
       tttcccccca ggtgactcgc tgcatcattg aggtcctctc aaatgccttg tcgaagtcca
3121
       gcgctccacc catcacccct gagtgccgcc aagtcctgaa gacgagtaag tgtcccacac
3181
       ggcaggcaga tcttggtcac tgcagtgatc cttgttccta ctccctccac atcaccttct
3241
       actttatcta caaatgacct gggggcataa tgcactagga agagtattga ttgactaggc
3301
       cagtatctgg gagacagaag atatgactcc tagttcctgc tttaccactt cgcagctgtg
3361
       tgactatagg aaagacMgtt tgcctcttt ttcctcaaag taaaatgaag gagttgaact
3421
       cagtgatagt ctttcagatg tctatccgtt cttaaattcc ttagttccat actttggatt
3481
       tttagaaccg gacttccttt gggtggaggg ggtttgggaa atgctggttt gtgattagat
3541
       gaggagggg gttatggaag tgttggacaa tgacagaggg agatttaaaa atcattcttc
3601
       tctttgcctt ttgctcttct gacagtgaga atcaggaagc tgagaagcaa gaaacttaga
3661
       aaggtgactt aaaattctgg cctatttaca caacaaatta gctaagatat tttaatgtat
```

FIGURE 3-B

```
3721
       agcttactag aatagaaggt gccaccaaat ggtaccagga gttccaggcc tgagaactgg
3781
       aagggtttca ggtagaggca gtgcattcca gtgaggcaga ctaatggctt tctgagtcca
3841
       gcctgtgaag tgttctcaat atgaaaccat ttctgctgaa aataaaattt gaacagtaat
3901
       ataagcagta cccattggaa attgacatta tgaggtcaat tttacaaaac tatgcagtct
3961
       ctgttatgca tgaagccaca ctgattcaaa caaatccaga aaacactgcc ctcttcaaca
4021
       ctgtcctctg cttttaaact tttagtcagg ctgggaacag tagattttat cttattttt
4081
       cacctttaaa aatctttcag gtgggcatag tggctcacac ctgtaatccc agcactttgg
4141
       gaggccgagg caggtggatc acctgaggtc agcagtttga gaccagcctg gccaacatgg
4201
       4261
       gcaggcacct gtaatcccac tactcaggag gccgagacag gagaattgct tgaacttggg
4321
       aggcagagac tgcagtgagc caagattgaa ctccattgaa ctccagcctg ggcaacaaga
4381
       gtaagactcc atctaaaaaa aaaaaaaaaa aaaaaaactc tcattgccac cagcctggcc
4441
       aatatggtga aaccccatct ctactaaaaa tacaacaact agttgggtgt ggtggcgggc
4501
       gcctgtaatc ccagctactt gggaggctga ggcaggagaa tcgctagaac ctgggaagca
4561
       gaggttgcag tgaactgaga tcgtggcatt ccactccagc ctggatacag cctgggtggc
4621
       agagtgaggc tccatcaaaa acaaaaacaa aaacaaaaaa aacaccaaat aaacacctct
4681
       cgctgccaga caagactctc ttgctatagc tatacatgag ccctcatgca tgaaatggta
4741
       aaaagcaaat agtgattggc caaaagagta acctgaggcc aggcgcagtg gctcacacct
4801
       gtaatcccag cactttggga ggctgaggcg ggcggatcac aaggtcagga gatcaagacc
4861
       atcctgtcta acacagtgaa accccatctc tactaaaaat acaaaaaatt agccgggcgt
       ggtgacacac gcctgtagtc ccagctactc aggaggctga ggcaggagaa tcgcttgagc
4921
4981
       ccaggaggtg gaggttgcag taagccgaga ttgccccacg gcattccagc ctcagtgaca
5041
       gagcgagtct ctgtctaaaa aaaaaaaaaa aaaaaaaaa aaaaaaaaa agagcaacct
5101
       gaattaattc aatctttggg ggcttcaggt aacaatggta gctgtggggg cctgagcctt
5161
       tagggaccct agaaacagtg gatggaagct ttcctaccac tcccagccca catacctctt
       tctgagtttc tttccaactt ctttttcca gcagttacag gaagtgagta agagcagagt
5221
5281
       gggtcactag qcagagagta aaggctgctc cttttggcaa acccatcttg gtatctccct
5341
       ttccctttct ttgtttacta gaccaatgca aaagtgaggg gcctgtccca tcagctcact
5401
       aaagaaccac agttgcttag gaaaagttgc ctatgcctgc ctgccaagat cttagccctt
5461
       agattatggc atagtaactc tagcctctgc tccagccctg attatgccct gaggtctttt
5521
       gRtgtctgtt gagagagacg tagggaaaact gggaaaaatc aaatgtatct aaggatcctg
5581
       gagatgttat acccagagag tgacagaatg ctgagatggc Raaggtttaa gagctcttct
5641
       gtggttgagc cttaaacacc aggcagagct agacagacaa ataacacaaa agagtaaggc
5701
       aggacaggaa gtgactcaca gactggaggg cacatgcctt ttctgagagg gagcaggtaa
5761
       ttctcagctc taaacccgtt atggagaaat acagactatg ttgtcaaatc ttgggatttt
5821
       tcaaaagaag ttaaaatttt gatttttaaa agacatctcc tggtattttc atatcgcctc
5881
       tgaattcaRa tgtactaaaa ctgctgttta ggtcaaacag aatttacctc tgatgcacca
5941
       gtttgcaact tttatcctat tctagttctc tctctcttgt tggcatgtcg taaactgatc
6001
       agaagactgg tggagctttt gcccaactgg ttggatgaat gcctttatac agcctctgtt
       ccaccccacg cccatctcca ctcccactcc tacttgcatg tctcagagtc agcatatact
6061
6121
       cactgagcaa atgagtattt ggggagtagg acagaatcat tgttttatgg atttgagaga
6181
       cctcagggaa gacgtagtct aatttcttca caggtacaag aatctctttg actagggttg
6241
       atctggtcat ccttacagca tgacagatgc atttccctgt tttcgcttga aagtaagtgt
6301
       gagetteaca gettgatttt acagettgae agtgagtgtg tgetgetate acageetett
6361
       ccaggcccac ctgcggggct taaagctaaa tttagtagga agagctaagc ctcaggcaca
6421
       tgctgctcag gcagtacata tttaattggg aaaaaataaa aatacttctg ttcctgacac
6481
       ttaagactca caaaccagta ggcagtagga aagggaccac agtgactcgg cccctggagg
6541
       ctgagatctt gtctgatcag ctctatttca accaactctc agaatgacat cagtatctgt
6601
       ctgtcttagt cagcttgggc tgctatatca aataccatag attggatggc ttaaacaact
6661
       aacatttatt tttcacagtt acagcagtcg gaagtccaag atcagagtgt cttatgaggg
6721
       cccacttcct ggcttgtaga tggctgcctt ctgtcactgt atcctcatct ggtggagaca
6781
       gaaatcatct ctttctcata tctcctttct tagggcacta atcccattgt aagtgctcta
6841
       ccttgatgac ctaattacct ctcagaggcc cccacctcca cgtgctatca cattgaggat
6901
       tagggettea acattttgga ateacacaaa catttagtea atagcaetge eeagageeae
6961
       catgcttccc tgtgcccatc tggctagcca tgccccaatg ctatacacac caccactggc
7021
       ttttaagagg caaagagact ggtgacagat gggccttctc tcagatgtct ggaaaaggcc
7081
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7141
       aaacagagag gtacagagag tccactattt cttggacatt tttacaaaat aaataatttt
7201
       tttccatttt qcaaatatca tttcaaaata acttatcagt qccacccaat aqaaatataa
7261
       tgtgagccac aaatataatt tcaaatttta tagtaaccac atttaaaaaag taaaaagaga
7321
       caggtggaaa ttaatttcaa taatatattt tatttttatc caattttttt ctgatatata
7381
       attttataaa totgatotat ttgaaatata tattatooaa tacatooaaa atattattto
7441
       aacatataat gatataaaaa ttgttgagat tattttacat tattctttat tctcagaagt
7501
       ctgatgtgta tcttacatat atagcatgtc Ycagatcgga ccagccacat ttcaagtgct
```

			FIGI	URE 3-0	~	
			rio			
7561		tgggcttatg				
7621		ttatctgaac			-	-
7681 7741		tgctaactgc				
7801		gctattgata atgtactctg				
7861		ctgagaacat		_		
7921		gtgcagtttt				
7981		catactgcta				
8041		tttcaaatgt				
8101	agttaactat	ctagctggat	tattgttaga	gccattcaca	tagtgctaac	tttttaactc
8161		aaaatatgga				_
8221		agaggttgga		-		-
8281		cataaatcta	_			
8341 8401		gggcattatg agctttcata				
8461		ttatccaage				
8521		ggaaccacaa		-		
8581		cgtcaaagac	-			_
8641		agacccagct			_	
8701	caggageeee	aggggaggag	gacatccaag	gcccaacaaa	ggcagacaca	gagaaatggg
8761	cagagggagg	cgggcacagc	cgagagcgag	cggatgagcc	ccagtggagc	ctctatccct
8821		agtctctgaa				
8881		ggaggaggga				
8941		ccttgaagag		_		
9001 9061		tataaaaaaa gaagacacat				
9121		gaatcacccc				
9181		ggaagatgcc				
9241		gagcaggccc				-
9301		ccaggaggaa				
9361		ccattcaacc				
9421		ttatccaggc				
9481		tgaRgaatac				
9541		aaactacccc				
9601 9661		agagagggc			_	
9721		tgcctatttc tgtccaagaa				
9781	-	ggacagaaat				
9841		agacctgcag				
9901		ctcccatcac	-			-
9961	catactacga	ccctctccag	tggaagagca	gccattttga	aagaagagac	aacatgaatg
10021		cgagggtgag				
10081		ctatgactgg				
10141		aaacctcgcc				
10201 10261		ggaccagctc ggagccggtg				
10321		cctgacagag	_			
10321		gttagcacat				
10441		cactatgaaa				
10501		tacctctagc				
10561	ttctcaacct	tgtctgcaca	ctggggtcac	ctggagagcg	tgaaaaatta	ctgtgttaga
10621		acttagttcc				
10681		gcgttcagcc				
10741	-	catcactctc				-
10801 10861		ttagtttgct				
10921		ggtaacacta taggttggtg				
10921		gagttcctca				
11041		tggctgatgc				
11101		gcagcttcta				
11161		agaaattggt				
11221		aaaacttggc				
11281		gctgactgtc				
11341	atctgttttt	caccacttca	ctgaaagaca	ccatttatMt	acccaagggc	agaaagtaga

FIGURE 3-D

```
acttactatt cattaaatgt ttgacacaat tggaattgtc tttaatttct gtcagaatgc
11401
       tattgaaaat gtgaattgca tgacttgtag catattcttt tctgcaaaat agacatatta
11461
11521
       acatgcttat gacaatgact gtgctactgt ctttggaaaa atgtttgtct cagttggaaa
11581
       taataaaaga ttcacctgag accaaaagct tcattgttct cagcttcttt tgggcaaaga
11641
       gagaggtgtg tgacttttca aatctattct ttgaagtaaa ttgcaaaaga tRgccctagg
11701
       atttqttqqq ttttqqatqc ataataqaat aaaaaaqcaa accttttqaa qtaatqtqca
11761
       ggatataaag agaaatagat tagaaaaaga catctactcc cccatgctga gagagattac
11821
       aggggcttga agaacctgtt tcaaaaacaa tcataagata ttactttaaa aattccttta
11881
       tctaaagagc tctacaagta gccagccaaa gttcattttt cagggctgag aagaaagctt
11941
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12001
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12061
       tggcttacag ttgtaatcct agcactttgg gaggcccagg cagRcagatc acgaggtcag
12121
       gagtttgaga ccagcctggc caacatggtg aaaccccatc tctaataaag atacaaaaaa
12181
       aaaaagctgg gcatggtggc gggcacctgt aatcccaqct acttgggttg cagtgagcgc
12241
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       12301
12361
       12421
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12481
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12541
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12601
       tgagccctgg aagttgaggc tgcattgagc cgagatcgtg ccactgcact ccagcctagg
12661
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12721
       tctgttacta agtagctctg actttgggca agttactttt cctctctgaa cctcaagatc
12781
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12841
       aacagagcag tgcctggtgt atatcaacgg cataggaagt gttagctgct gccgtaatca
12901
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12961
       tcatttaatt cctcaccctt ggtggcttct acttggttga tttctactgt tttcacagtt
13021
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13081
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13141
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13201
       ggccagatga ttgaagtttt tatagcatcc tgagctacag aagagaatag ggggcttggg
13261
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13321
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13381
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13441
       ttcaaatatt taaatacatg taggaccaaa gtaaatgtga cacagtataa aggaatccat
13501
       aaatacagag aactacacta tatttctcta qaqqcaaata cataqccaat tcctctaaca
13561
       caattcaacc tttatcatta gatacagaat tgtgcaatta ttaacaaaaa tatgataatg
       ttacatgtag ttcttcatgt ctttaattag tatgaaatat aaaagttgaa aatactgtgc
13621
13681
       caatttcata tactcttttt ttttaaaaaa gtcatattta catctaccta gatgaaacca
13741
       aatgaaaata ttttcttttg taagtttcat agtttttgag agttctatct agcccagact
13801
       gaagttactg atgatcaact ttcttacttt aaaataatac aagaaaaatc aacaaaactg
13861
       tgctgggatg gaattttgga agagctttct aatggtgcca catttggtaa atataaatat
13921
       ttgtggaaaa attttaaaac gtgatgccaa tgagaacctg acacttctct gtggtggtgg
13981
       14041
       ctatggctgt acataacaga gcagagactc aacagcaaca cagagtaggt taaagtgcac
14101
       cgtacgcaga cagaagatgg ccagaaagga ggcatgtgtg cccaggctgg cagtctctgY
14161
       actgtgaaag cttcagtctt tagccctggg ctttatgctt ctgtttgctg gtgagctcag
       gcacaatgca tatacattca gtgtctgtca ttccaacagg cacagttggc agcttaatgg
14221
14281
       tggcattaaa atggagggct atttgcatac aatcaatcaa atgaaactct gtggcttcat
14341
       tccaagccta ggggtgcccg gagactgagc ttttgcaaag ctgatgtggg catacagaag
14401
       aacagtgatg cccttgtgcc ccacttccag ggcgatcgag agcatggtgc tgccatcatt
14461
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14521
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14581
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14641
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14701
       aacctgcatg teetetgett eegeagetge gagggeegee ageatgatga aggtatagee
14761
       ccttgttctg gtgatccacg ttacacatgt gggtgtccaa cagcagcttc acaatctcaa
14821
       aattggagtg ggacaYgctg taatggaggg ctgtgttgct gttgccatct gccaagttga
14881
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14941
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15001
       gacagaacct catatctttg ctggtcacag ctttggggtc atttatatta tttttcagta
15061
       agttgcaagc agacaacatt ttttcactta atttatacct ccctctgatt ttcaccttct
15121
       caggiticacg tictigaaac tgcatticat citiccaccct ggccRactig aaaccticaa
15181
       tgttaatggc atggtgccct ttggccattc cccaagtgtc ttcatcctcg tcttcttcaa
```

FIGURE 3-E

```
15241
       gaggatacta ctcaatgaca ctcaatgaca tcacactcgt catctgactc agaagaagag
15301
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15361
       aactgaagat totttttcat gocatttgaa totttgttac catotttott ottcataatg
15421
       ggctccagtg tactttcatt gtttgtgcat atggaggcca gcggccatct ggttgtctgt
15481
       caggiticact agagaccatg teetiteetg ageggggaag geateetgge tgetgaccag
       ctttccttct gagatcccta cctctgagca gccttcttcc tgatacagat actttactaa
15541
15601
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15661
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       ggtggcacat tgtggtctcc tccagtcata ttttgggatg gtgtgggccg agccccagca
15721
15781
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15841
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       actctctgtg acatactttt ccaggagcat tgctgcttYg tcatatgggg agcccatcag
15901
15961
       tgctataaat ctgatggcaa atttttctaa acctggacac acacttctag aaggtttctt
16021
       gctatctctc tgcctgcatt ttttttttt tctggccatg ggattgtgac tgcctgtttg
16081
        taaagggcag tgatgggggt gtgaggaggg gaaggctgct ggaggaggta gctcttatag
16141
        tggacaaggg gggttggtaa atacatacca tactagtttt ctggggctgc cataacaaat
16201
       caccacaaaa cggatggctt aaaacaagag aaatttattc tcttacagtt ttggaggcca
16261
       qaaqtccaaa atcaaqqtqc tqqcaaqqcc atqctccctt caaaqcctqt aqaqqaqqat
16321
       catteetige tretteetigg titettigett cateetiget tetteatiee tigettette
16381
       caggeettee ttggettgtg geageagage teccaetgee acetetgtet geaeatggge
16441
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16501
       tgaattaagg acccatccta ctccagtatg acctcatctt aactaattac atctgcaacc
16561
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16621
       tttttctggg gacacaattc aacccataat aaagcaggcc agcacccacc cccctcaggt
16681
       ggagagacac tgaggcacat attctgcact gcctcccaga cttcctctgt ggatcatgcc
16741
       ccaggtgcca cagcagtgac ctgcccaata atgcagcctt tattggctgc ctttaccttt
16801
        tecactgeec actggtgace etgetggtgt tteetgggat cateteteat ataaactget
16861
       tgttttcaaa tacttgtctc agggtttgct cctgggggac cctgacctaa gaaactatcc
16921
       aaaqtcaagq cttatattat qccaaataqt atacctqcac ttqcaacccc ttqtcttaat
16981
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17041
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17101
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17161
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17221
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17281
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17341
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17401
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17461
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17521
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17581
       ggattatggg ttgaattttg tccccaaaat gaagaagtct taaccactgg cacccatgaa
17641
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17701
       attattggtg tccttacaag aagacggaaa ttcagagaca aacacacaca cagaggagaa
17761
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17821
       ggttaccaga tttttctggt acggtcaagg aaggattctg ccctagaact gtcagaggga
17881
       acactgcctc tgccaacaat tcagtttcag acttctggcc tccagatatg caatagaata
17941
       cttttctgtt gttttaagcc actcagcttg tggcacattg ttatggcagc cctaggtatc
18001
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18061
       ccacctgtaa tttaactttt agatttattt tcttatttga atatattgtc atgatttata
18121
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18181
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18241
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18481
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18541
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18601
       gtaattacaa ttctgcagtc caggatcctg acactcacat atatgacagg cttcactgag
18661
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18721
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18781
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18841
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18901
       acaattggag agttctcaac ggatgactga taggatttgc tttatgttta taacaacact
18961
       ggctgctggg ttgagtgatg gctgtagggg aagtgaaggc agaaacacag aaaccaataa
19021
       ggagggcact gtaatgaccc tggtgggtca ttgtgatggc agggtccaag gtggtggcac
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FIGURE 3-F

19081	tgggaatggg	gagaagtggt	agaattctag	atctattctg	gagacagagc	tgacacgtag
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19201						
					ggtttggaag	
19261	gggagctcag	atttgaactt	gttaagtttg	agacgtgaat	agatacccag	cagaggtgtt
19321					gttgaagact	
19381	gtcatcatca	tagagacggt	atttaaagcc	ttaaaactgg	gtgagatcac	ctagagttat
19441	ataaatqaqt	gaaagatggc	ctctgtttat	tagctcatag	attgtttatt	tcttcattgc
19501					tacacatcca	
19561	acaaatttta	tgccaatttt	tagccattca	gggccttgct	ggtacatacc	cggtgaaact
19621	atacccagca	tctqttqqcc	attgataaca	tagagccttg	tggttataag	accttaaqtq
19681					atcqcttqaq	
		_			, , ,	,,,,
19741					taaaaataca	
19801	atatgtggtg	gcatgcgcct	gtagtcccag	ctacttggga	ggctgaggtg	ggaggatcac
19861					gccactgctc	
		gaggaggagg	cegeagegaa	cegagaccae	gccactgctc	
19921	gtgacagagt	gagaccctgt	ctcagaaaaa	taaagccaaa	aacaaaaaca	caaacctcaa
19981	gccgtccctg	tccttcggag	ctctctgacc	cagagactcc	cctctgtact	gctgtgcaac
20041					cctcgggggt	
						-
20101		ccttctgagt				agactcttgc
20161	tctaagggac	atccccctac	ccctatgcaa	acctgtcaga	gtgtcaccat	caccaataaa
20221	atatototot	actactacca	tctcataatc	atotettet	ctttgatcag	tccccaaatc
20281						
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20341	ctgaggcatg	ccaatgttta	gaagtttcag	agatgaggaa	gaaccagtaa	gagagataca
20401	gaaagaaagg	ctggagaggt	aggaggaaa	ccaggagaga	gtggtgttct	agaagccaag
20461					acactgctga	
20521	ggaccgagaa	ggagctctgg	atgtcacact	accgtccatt	gttgcttgct	gcccacacca
20581	aacctgcttc	ccactgtggc	tqctccaaaq	ggctgctctc	ccgtttccac	cagtgccaca
20641					tttttcacaa	
20701					caattattca	
20761	agtgtgaaag	cagccattga	caatacataa	acaaattgag	agtggctgcg	ttccaataaa
20821					tttattttat	
20881		-		_		
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20941	atacaaaaaa	cttgtagtgg	gccagatttg	ctgcccgctg	atttaaatta	atcatattct
21001	ttcttattt	tatctccttt	cttgaatctg	tcaccatatq	actttattta	tttatttatg
21061					tggtgtgatc	
21121						
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21181					ttagtagaga	
21241	ccatgttggc	caggctggtc	tcaaactcct	gacctcaagt	gagccaccct	ccttaatctc
21301					tctatataat	
21361					aggtgacagg	
21421	gaggtcacta	cccacctaag	catttgatta	aggaaaagta	ttcccaaaag	gcaaaagaat
21481					aaagtttgtt	
21541		_	_			
					cccctctttc	
21601	atccacagca	ccttgttacc	tgtcaaagca	aaaatgaaat	gtcaaaatct	ttccagtctt
21661	gttttaatga	tatctcagct	aagagtaaaa	aaaaaaaaa	acaaaaacaa	aaaagcccca
21721	ggttattaat	anaactotaa	aaaaaaacctt	ccaaaaaaaa	tgggtagagt	atrafattra
21781					tcagatagct	
21841	agtaaaggtt	aatacggtag	ttgaaaggtt	actggttgct	ttttaagtag	ctattcaggg
21901					gttcaaggaa	
21961						
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22021	ctctgttcct	ttctagcact	gcacttaaag	gcattacaaa	atcaggataa	agtgaatcct
22081	gatcatggat	ttttaggaca	tacattttaa	tatttagtac	tgttcttgca	ataYttacaa
22141						
					Ycccaaagct	
22201	ttgagaaaag	gctatttttg	gcttttcaat	atacaaccaa	tgcatgaatg	attgctcagt
22261	atttgcttca	tacaatttga	gtgtaccttt	aagctaaaaa	atgccctgta	atgggtgcca
22321		_		_	atggatgtta	
22381					ttctacataa	
22441					ctccaaaggt	
22501	tttaaacaca	agacaaaaac	atcctdtatt	tagetgtage	catgatgtgc	atgcacacag
22561					atatcacctg	
22621			-	-	cttattctgt	
22681	gcccagtggc	ctctgcttac	caagccctcc	aggggaatct	aagttttcca	atgctaagtt
22741					aaactatatg	
22801						
		-			gatgagttca	
22861	tgagcatgca	gggccttggt	agctcagacc	ccagacccct	tgctcaagaa	actcaagaga

FIGURE 3-G

```
22921
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22981
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23041
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23101
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23161
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23221
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23281
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23341
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23401
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23461
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23521
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23581
           tctgagatgt tccttgctgt atgatacagg cctattctat gacaggagca acgcaaacga
23641
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23701
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23761
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23821
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23881
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24481
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24541
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26341
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26461
          continued that the continued and the continued a
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26581
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26641
          attttgctat tgtcaattac atcatccaca gtgatactga ggccttgggg aaataagaac
26701
           cataatggtt tgcattttaa atgcctttag ggcagagtta cagagtaata tattctgaca
```

FIGURE 3-H

26761	taacaagaga	aaaaaagggt	cacaaaaagt	caggggcata	ttctctgagt	aacagccatg
26821			aaagaaacag			
26881	_		gtcacccagg	-		
		-				
26941			ttcaagcaat			
27001			gctcgactga			
27061			tttttttgta			
27121	ggtcttgaac	tcctgggctc	aagcgatctg	cctgccttgg	cctcccaaag	tgctgggatt
27181	acaggcataa	gccactgtgc	ctggctgaga	taactctatt	taatgacttc	tagtactact
27241	gcaaggaaag	tcaagtctcg	ggagggcagc	tcttqqqact	ggctgtaaga	acacqtacct
27301			tcagacagcc			
27361	-		agaggctgca		-	-
27421		-	atcaacattc	_		-
27481		-			-	
			acagtagacc			
27541			agtggggtgg			
27601			ctctacaccc			_
27661	_	_	atttgcatga	-		
27721	ttctagaaat	ccaaaacaga	atacaatcat	gagctatttc	tttctaggaa	acgcgaacta
27781	ggttagaagc	tcttgtggta	cttggcaact	ctaagtcgca	tttaatgaca	ttcttgattt
27841	tttaaaaaaa	atcacctgga	aacaaatcca	acactgcata	agctgctttg	tggatatctg
27901	ttatagcctg	tatcgcagca	tttgagtgcc	ccatcccctq	catccagtgg	qaccacaRqq
27961			gagaagattc			
28021	_		agcctcagcc		-	-
28081		-	tagagtcaaa			-
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			agagcggcag			
28261		_	atcttcaaaa	-	-	
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28501	catcccgaag	accgaatcac	acgtttgtat	acatgtacac	acactcgttc	tctgttttga
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28621	gttaactgag	ggactgagat	tatgggggtg	gtggggactc	ttggcatcct	tacataatct
28681			aggcccctta			
28741	-		gttgctctct			_
28801			ctccagtgtg			
28861		-	cttggcagaa			-
28921						
			accactgaga			
28981			tccagggtat			
29041			cccgtggagt			
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29161			ctgtttggag			
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29281	aaccctgtgt	ctgcaaattt	ggatgtcaca	tgattggtga	cKgactctgc	ttcccctcac
29341	tccgatcctc	aaatggagca	gttacaagtt	cttaccttct	atggggtcag	aaaaaaacca
29401	gacaaatcag	gctgtgttgt	attcttccag	agagaataca	tgcttagtaa	tcttcccact
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29521			ccagccacag			
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FIGURE 3-I

```
30601
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       gaatttataa taaaatacaa gtactttata actccactta aaccaacgta aaagaacaga
30661
30721
       gatatccaac aaaaggagaa gagaggtaaa ggaaactaat ttctgaagac actggctgaa
30781
       aacattactg aaaatgaaca aagttaaatc ctgatatgSa ctgttattac attctctacc
30841
       actgacatta gtaatgtcat tcacttatat tcctgtatat aagacataaa atctttgaaa
30901
       tgttgagtaa catgtacatt tcaacctatt tctatcaaag ctataacgtt atttttttgt
30961
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       aaacaaaact aaaaatcctt tgaatattac ctctccttta atgcccttgt ccttcaaagc
31021
31081
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       agtgcccgct tctttagtct ctaaggaaag aaattgctct attgacattt atggtctgaa
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31201
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31261
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31321
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31381
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31441
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31501
       cotgectate attectggee tgatetettg acaetttage tteagecaea atggeettet
31561
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31621
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31681
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31741
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31861
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32041
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32101
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32161
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32221
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32341
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32401
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32461
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32521
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32581
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32641
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32761
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32821
32881
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32941
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33001
       aagactcatc gaagtaacaa ggatttaaca aatttcttgg gcttggtctg atcggccatt
33061
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33121
       acacttggaa atggagccta acactgacaa tgctctactg aggaccaggc aacttgaggt
33181
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33241
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       caaggtgttg ttggagctgg gattcaaatt caaatctgtg tctgacccca agcctcattc
33421
33481
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33541
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33601
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33721
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33781
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33841
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33901
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33961
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34021
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34081
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34141
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34201
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34261
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34321
       acgccactac actctagcct gggggaccga gtgagatccc gtctcacaaa acaaacaaac
34381
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FIGURE 3-J

34441	tgtgatatgc	agaggggatg	atgcgtgtca	cttaaaactg	gctggtttga	caggtcactg
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34561			tactictcag			
34621					-	_
			atgagggagt			
34681			aaactgccac	-		
34741	aaaagtattt	ccaaataaat	gtttagggca	gtggtctcca	acccttttgg	caccacaaa
34801	ggggaaggtc	aactactgtt	catgcctgta	atcccagcac	tttgggaggc	tgaggtggcc
34861	ggaattactt	gagcccagga	attggagact	agcctagaca	acatagtgaa	actctgtctc
34921			ttaaaaaaga			
34981			tccggactaa	-		
35041			cttgtgcaaa		_	
35101	gagacttgtt	tcttgactat	tttatgatgc	ttgcttcacc	ttaaatacca	gtcaacagtt
35161	tgcttaaacc	aggagtaaaa	gaattcatct	gaagtaagta	cttatcagaa	attccaaatc
35221	tcatacttcc	cagtctgcag	aaagctgttc	tcctgacatt	gcattcaact	tatctctqtc
35281	aaaagtaata	caataaccta	gctcaaaaga	aactgtggcc	aggtgcggtg	gctcacacct
35341			ggccgaggcg			
35401						
			aaaccccgtc			
35461			gccagagtcc			
35521	cgcttgaacc	tcggaggcag	aggctgcaat	gagccgagat	tgcactactg	ccctaaagcc
35581	tgggtgacaa	agcaagactc	cgtctcaaaa	acaaaaacac	tgtggttgta	tttctcagat
35641	aaattaatcc	aaatatccca	ataaattttc	accattaata	agctcttagg	acttaacaac
35701	ctcaccagcc	cttccagaaa	gttatcaaaa	tcccacttct	ttacttctat	aaaacagagc
35761	=	_	caaaccaaac			
35821						
			cagcgttgaa			
35881			gtgaattgtc			
35941			ccagactagg			
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36061	aggagactct	ggagacaagg	atgagatcct	aaagtgaaga	aaggagggg	tgtctctgga
36121	aagacagtga	agatcccaag	gtcctaggga	aagaacttca	ggacaggtga	ttagggtgtg
36181			ctagggccaa			
36241						
			aaggtggacg			
36301			ggagattatg			
36361			cgaggagaca			
36421	caagaatggc	accctggcgg	aagaattctg	tggagaaacc	tggagggagg	gggtatctac
36481	aaggtggggg	cgggagaccc	ctaaaatcag	cgatctgact	tactttctcc	gctggacttg
36541	tactgcttta	aacacatctt	cacgtttcag	caccacgaag	tcaccatcac	ggatgcggtg
36601	_		gtgggcccgg			
36661			cgtcccgccc			
36721				_		
			actaggagcc			
36781			ccagacctca			
36841	tctggccaaa	ctccttgatt	ggctgcactM	cgccccgccc	ctctcgtctt	gccgcttctt
36901	tgagcggaag	ttggatcact	gaagcgccaa	aaaagaattt	aggggaagac	ctgattttcg
36961	cttgaggcat	ttttgcggcg	ctgtgcgcta	cagacacctt	ctggaagctg	cggtggggaa
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37081			gcggacttgg			
37141			cttctctacg			
			-			
37201			ccggcccagt			
37261			agccttagga			
37321		-	tttactcttt	-		-
37381	atttgttact	gttctcagca	tattgtctcg	tttgagaagg	gtatggcacg	cagcgttgtt
37441	gaaggagcgc	ctcagcttgg	gaggctgaaa	gttttatctc	tgtactgtcg	acaaacaact
37501			taatttcttt			
37561	_		ccqttaaatc		-	-
37621			aaggatttgg		-	-
		-			-	
37681			ttacttgtat		-	
37741			tttggattta			
37801			taagaagcta			
37861	agaattatgt	tcatcctgtc	ctgccctata	ataagaagtc	tcaaatactg	caaataagtt
37921	ttcatagagt	taattacctq	tcctattttc	atttctqtaa	tggggacttg	taaacaqqta
37981		-	aacctgtgag	_	2233	
38041			accttaaaaa		-	_
38101			gctgtacaac			
38161			tttttattaa			
38221	gttttggtga	agaccttttt	aatatctatc	ttttaggaga	gatgaatgga	gagtatagag

FIGURE 3-K

```
38281
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38401
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       cgtctatcat acaaggcggt ttatctcata cttcagtttg tcttttattt catgctactc
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38521
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38581
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38641
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38701
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38761
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38821
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38881
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38941
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39781
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39841
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41221
       tatgtcatac ttaccattat cacatataaa cattgtatgc tttctcaaag tctataatag
41281
       aatgctcagt taatggtaat tgactacaga aaagcaatta ttgttttcat acttttatat
41341
       tttataggat gaaatagaaa gaaagggaag tattttggta gattttaaag aactgacaga
41401
       aggtggtgaa gtaactaact tgataccaga tatagcaact gaactaagag atgcacctga
41461
       gaaaaccttg gcttgcatgg gtttggcaat acatcaggta actatttgtc ttatgcatac
41521
       ttttgtctaa acttttttaa tgtttgcaca cacatgcaca ccttgtctaa gtttaaagga
41581
       agattttaca gtgactgtac tttctataag agatacttag cttttacgaa aagatgttgg
41641
       ctagaactga gaggttgcag ttccgttctg aaagatacca ttcattctat atacaacagc
41701
       ttatctaaat gaaatattta cctccaactt atttggattt gcttaatctt gctaaagatt
41761
       gtgcagaaat taaactttgc tttcaagaag ttatacaatc tcatagggaa gataaaacaa
41821
       ggaatcatgg tgttatcggt tatgaactta gagcaaaaaa gagcaacctt agatttaggt
41881
       tctgtggcat gaagcaaacc actgagtgtc cctgtatatc aaatgtaaat aacaRtttgt
41941
       actgtgcttg cctgagtttt ttttcagggt caggtaatac aacatatatg aaaacatttt
42001
       42061
       tgttgccagg ctggagtgca gtgtcatgat ctccgctcac tgcaacctct gcctcccggg
```

FIGURE 3-L

```
42121
       ttcaagtgat tctcttgcct cagcctcccg agtggctggg tgcaccacca tgcccagcta
42181
       agttttggag ttttagtaga gacggggttt cacgatgttg gccaggatgg tcttgatctc
42241
       ttgatcttgt gatccgcctg ccttggcttc ctaaagtgct aggattacag gcatgagcca
42301
       ccttqcccqq ccaaaaacat tttttagqct agcaaacaqa tacatqcttc aaqqtaatqa
42361
       ataqcaaatc tcaqqacaqq catacacaaa qtqctqgqqc attcaqaqqq qcattcttct
42421
       acctettgee tgtgetgtee atteaacata gaateeeett eeetteacat ggacagatta
42481
       tttgggccta gctcagttgt ctgtctgtaa aacctttctc atgaccactt ttcgaaactt
42541
       qcatqqtatt ttqtctqtac atctttatgq tccttatgac aattacaqct gtatatatgc
42601
       atcttatttt gcctcttagg ttgccagcaa actgctgtgt acaagtggta ttaaatgttt
42661
       gtttgttgtt tatttattta tttattttga aatggagttt tgctcttgtt gcccaggctg
42721
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42781
       aggcatgcac tgccacactt ggctaatttt tgtattttta gtagagatgg ggtttcacca
42841
       tqttqqtcqq qctqqtctca aactcctgac ctcaggggat ccacccactt tgqcctccca
42901
       aagtgctggg ataacaggtg tgagccactg cgcccagcgt gtttatatta tttaatgtta
       aatgccaagg gagtgagtat taggtatttt aaaggtcatt tttattttct gtgtcttgat
42961
43021
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43081
       tgatggtttt ggggactaat gtaagggctt ttaatgttag gtttagttgg gacagaaagt
43141
       agcagactgg gatgctggag tttttcagca cagggacagc aaaatccaat gtaaaacatc
43201
       cactataaag taagtagtca taattaaata ttagatattt aaagggctgt taaagttttc
43261
       tgtttttatt ctgtttctgt ccataaactt tatattctct ataaaaatag agttctgtat
43321
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43381
       aaggaccttg aaaggcatgc agctgagtta caagcccagg aaggattgtc taatgatgga
43441
       gaaacaatgg taaatgtgcc acatattcat gcaaggtgag gaatttgatg tattaaagta
43501
       ttacttagaa tgggacattg aaggccattt aagaatgaaa acgctcattt tataaaaatg
43561
       aggaaatcag taaaaaggac atgagtteet tgecatetea ttgateatea caetgaaata
43621
       aactcattga 'aaattattca aagacatcat gacagatact tcctaaataa ggaagaaaat
43681
       gttgatttcc taacctgcag atttttgtaa acattggttt tggatgtgaa cttatcaaga
43741
       ccctgctgtg taagtttaat aatccatgta tgggttgagt atccctaatc tgaaaatctg
43801
       aaatctRaaa tgctccaaaa ttcaaaactt tgagccctga cacgacactg aaaggaaatg
43861
       ttcattggag cacttcagat ttttgaatta gagatactca actagtaata ttgcaaatat
43921
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43981
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44041
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44101
       gaattcatta taaggtaatc atcagcattt tgtttttctt ttccagaatt tatagaagaa
44161
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44221
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44281
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44341
       gggcacggtg gctcatgcct gtaatcccag cactgggagt ccgaggcagg cggatcacga
44401
       ggtcaagcga tcgagaccat cctggccaac atggtgaaac cctgtctcta ctaaaaatac
44461
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44521
       aggagaatca cttgaacccg ggaggcagtg gttgcagtga gccaagatgg cacccctgca
44581
       ctccaqcctq qcaacaqaqc qaqactccat ctcaaqaaaa caaaacacaa caagaatqgt
44641
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44701
       tgctcctaaa aggaacttgt gaaaatataa aaaacatcaa ttttctgttc attacttcct
44761
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45061
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45121
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       ttcagctccg gacacatttt ttaatgatat aaagcattac tggcacaatt agtgtctgtt
45181
45241
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45301
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45361
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45421
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45481
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45541
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45601
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45661
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45721
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45781
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45841
       qtqctctttc caqtttttta taaqaacaaa tqatactgca gagaacattc ttgtacatgt
45901
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```

FIGURE 3-M

```
45961
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46021
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46081
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46141
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46201
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46261
       actttccaga gtattgttcc caacttaaat ctttgctggt agtgttaagt agttaccatt
46321
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46381
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46501
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46561
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46621
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46681
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46741
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46801
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46861
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47041
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47161
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47221
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47281
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47341
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47461
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47581
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47641
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47761
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47821
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48241
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       ctgcttatat ggctgctgac aggttcaggt caagaagtgc agttggtagg cagaaatggc
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48481
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48541
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48601
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48661
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48721
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48781
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48961
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49021
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49081
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49201
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49321
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49621
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49681
       ttatattgta cgttttatct aaatgacaaa gtgtataata gtgtataata gatggtttat
49741
       ttgatgaaga gtttgtatgt taaaataatt ctttttttt tttttttt ttgagacgga
```

FIGURE 3-N

```
49801
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49861
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       ccaccacaat gcctggctaa ttttttgta tttttagtag aggtttagtt tagaggtttc
49921
49981
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50041
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50101
       tttattctct gtcagattcc agaaaggatt cattatgcaa atattgtgtc ctaatgagaa
50161
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50221
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50461
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50521
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50581
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       tataqtgaga tctttacaaa caccccattt tataaaagag gaaatggtta agactcttga
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50701
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50941
51001
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       ttttaaaaat tcaatcagtg tggaaaggca cagtccccac aacttgctgt tacattatac
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51181
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51241
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51301
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51361
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51421
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51481
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52441
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52561
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52621
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52681
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53041
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53221
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53281
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53341
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53461
       tcattttggt ggacattttg gagggaggct aggcaaatac atatgttcat ttggctatct
53521
       tgaattggaa actgctgaag taattttaga tataccatta aactgttaat aagcaaatct
53581
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```

FIGURE 3-O

53641	caaantaant	attctaactg	aaaactattt	aaactttta	gaatccagga	attgatgtct
53701		gagaagcagg				
53761		gctgtgtccc		-		-
53821		aaggtagggt				
53881	_	ttttctaaga	-			
53941	-	tgaaacattc		_	- •	-
54001	-	ctagttgagt		-		=
54061	acttttaatt	tacaggttct	cgaaataaga	atgacaagtg	tatgttcctt	ttgtatattg
54121	aagcaaattc	tattagtaat	agcaaaggac	agaaaacaaa	gagttctgag	gatgggtgta
54181	agcatggaat	gttgatggag	ttctcactta	aagaccttta	tgccatccaa	gagattcaag
54241	ctgaagaaaa	cctgtttaaa	ctcattgtca	agtatgtatg	ctgtcatttg	aaattttatt
54301	acataaatgc	acgttggggg	ttctcttggc	tacaggtaac	aaaaaactag	tcaaaatggt
54361	cggcaaacta	cagtccatgt	accaaataca	gtactccatc	cccttgagta	tggcctatga
54421	actaagaatg	gtttttatat	tttttaatgg	ttgaaataaa	ttaaaagaat	atttcacaac
54481		atatgaaatt				
54541	-	gaggccgagg	-			-
54601		tgaaaccctg				
54661		atcctagcta				
54721		agtgagccaa			_	
54781		taaaaaaaaa				
54841		cactcattca				
54901		tgacagagaa				
54961		gctgatctct	_	-	-	
55021	-		-	_		_
		caacggaaga				
55081		gttgctcata		-		
55141		ttccatgcta	_			
55201		gttaagagct		-		
55261	•	cagtgtgatc				
55321		ataataagac	_		-	
55381	-	aacataacta	-	-	-	-
55441		ttgaagaaat				=
55501		aactgagaac				
55561		ctcaagcccg				
55621	tgaggtcagg	agttcgagac	caaccggacc	aatatggtga	aaccctgtct	ctactaaaaa
55681	tagaaaaatt	agctgggcat	gatggcaggt	gcctgtaatc	ctagcttcct	gggtggctga
55741	gacaggagaa	tctcttgaac	ctgggaggcg	gaggttgcag	tgatctgaaa	tcgcgccact
55801		ctgagcaaca				
55861	ttttgtcatg	cttttctgtt	cagtaggctc	aggtctgtaa	gaggatttga	tgctttttct
55921	ttctggcttt	aatatgttaa	ttagctgact	gagtaaagaa	tagtgctcca	caggggtttt
55981	ttgtccttaa	atcctacttc	cctctgaata	aaagccattc	agacccaccc	tggaagagag
56041	gctgctctaa	cttagcgttg	ctggggtggt	cttggagtga	gtcctttgag	caggtggcca
56101	aggaagcaac	ctggtcgaca	atccaaacat	ctttggttcc	tcttaacagt	tgtaaattaa
56161	aactgaacat	ttttagtggt	ccctcttctc	ccatacttat	agaagagtaa	gtatggaaaa
56221		cttcccacag				
56281	_	tttcatggtc	-			_
56341		ttgtaagtca				
56401		gtťgctťgca		_	-	
56461		aaatactttc				
56521		ttatgtttta				
56581		aggtgattct				
56641		caggtgaccc				
56701		gaaagccagc				
56761		attaaacacc				
56821		atagaaaggt				
56881		gtgagtgcca				
56941		gggaataaag				
57001						
		ttgtttataa				
57061		tagagacagg				
57121		tgtagcttca		_		-
57181		actaaaggtg				
57241		ggtctcactt				
57301		tggcctccca				
57361		ccaaggcccc		_	_	
57421	aagatttaac	ctgaaagact	gattcaggcc	acaaagggaa	gcgggggtca	gacatgcctt

FIGURE 3-P

```
57481
       attatacctc tctggcatta acatcaacac agattttaag tctaataaga aacattttac
57541
       agcctgttct ctctgaaacc tgttaKccaa agcttcatct gcatgataaa actttggtct
       ctacaacctc ttgcatccca aacattcctt tctattgatc ccaggtcttt agacaaactc
57601
57661
       aaccaattqt caaccagaaa atqtttagat ttacctqtaq qctqqaaqcc catqctttqa
57721
       gttatcccac ctttctggac tttctggttc tacaaatcac tgcacctggc ctcattttct
57781
       tatttaattt gaccttttga cttgaactga aaaaaatgaa attttatccc atcttagagt
57841
       attatatact gagttcactt ctcagtctcc tttcagtgac ttggctgcac agtctcaaga
57901
       tgtctgttca cataaaatac aatataatcc cgtatcctaa aatggaagac catgattgtg
       acqcatttta aggctagttg tgtaagaaga gcaacattgt atttagttac tttaagatgc
57961
58021
       tttgcaagta tcctctgttc cttatgcaga gtttttaaaa aattctaacc tttatagatt
58081
       aaccaagaac tttgagaaat gtactgtaag aataaaattt cagttgaggg gatgtaaatt
58141
       ttttacattt gtctttgttg atattaagca ggttaaacaa attgtagagg agatctccta
58201
       atggatcaat gaagtataaa ttagaattta taagttgtgt tctgtttttc agctcgcttt
58261
       gccctgtcat ttttggtcat gaagtaagta ttttacttca tctttactca aaaagtatat
58321
       aaggttagca aaaataacat ataaaaactt tacagaaagt agcaaatttc tattqqccag
58381
       ttatttatat cttaatatgc tttgtaaatt aatgatatgg gaggcaagca aactatagct
58441
       ttttttttt taatttttt aatttttga gacagggttt tgctctgtca cccaggctag
58501
       agtgtgatgg cacagtcatg gctcactgca acctccagct ttggggctca ggtcatcctc
58561
       ctgacctcag cctcctgagt agctggaact acaggcatgc accaccatgt gcagctaatt
58621
       tttttgtatt ttttgtagag atggggtttt gccatgttgc ccacgctggt ctgtaagtcc
58681
       tggcctcaag tgatccaccc aatttagcct ccaaagtgct gggattatag gtgtcagccg
58741
       tatagctcct tttaagaaaa aacttttacc aactagagta aatatgaatg ggcttttatt
58801
       ttatttattt attttttga gatggagtct tgctctgtcg cccaggctag agtacagtgg
58861
       tgcgatctca gctcactgca acctccacct cccaagttca aacagttctc ccacctcagc
58921
       ctgccgagta gctgggacta caggcatgcg ccaccagacc cagctacttt tggtaagaaa
58981
       tgggctttta aagtgactag acactgccag tattaaagca aaaacaaata tttctcgttt
59041
       ttgtggaatg gatttatgcc ttgcaaggta gctcttagta atttctaaga tagctctgat
59101
       tttatatgtt ttcaagtttt tactttttaa tcatttacgt gatagaagtt tgtttttaga
59161
       cttccttttc ttagaaaaaa attatcatgc ttttaaaaca atccccaaac aaattaatat
59221
       tatagaagga ggaatacccc ctttactagt cacctttatg ttttccttac ttctgttttt
       tgttcttttt tcgcacttga gcttgttaaa gcaggtttgg cattagcact ctttggagga
59281
59341
       agccagaaat acgcagatga caaaaacaga attccaattc qqqqaqaccc ccacatcctt
59401
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59461
       agtgtttgtt cttttgcttg taaaatgcgt taataattca caagtgaatt ttctcaaagc
59521
       atgtagtgtg tgtgttccag aggacatggt taggtggcgt aaatgaattg gaatttgtgt
       qaqtaatatg taacttatat ctgaccatat ttttaaattg agccagtctc ctgttacaga
59581
59641
       ggctgtacaa acatcttggt ctgttgagac atcaactatt aggaaatatt aaccatttct
59701
       ctaaccattg ttttgctagt ctttgttgtt gttagttgtt atgtgacctc acctatgaac
59761
       agaatagttc aggggagtta aagcagggtc acctattctc cctcatacaa gtacataaac
59821
       actgtattgg gctttaagaa cagtctgcta aaggtgtggg atctgtctgt atatatctcc
59881
       actgcttgtg agtccaaatc aaggcaacct ttttttttga gacggagtca cactctgttg
59941
       cccaqqctqq aqtqcaqtqq catqatctqq qctcactqca acctctqcct cccactttta
60001
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60061
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60121
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60181
       gtgagccacc acgctctgtc caaagcaagg caactgctgt gatcagtcat ttgtagatcc
60241
       ccaagaaaat tctqcctctg ccaqtcagag cctaqtqqtt ttcctttcct qqqttttatq
60301
       atggctttag aaggtgctgc ttattggtat gcttgtagtt tccttaaagt gacaaccggt
60361
       aagccagccg taatgtgctt tctactttat ttttttgaga caaggtcttc ctcttttgcc
60421
       cagactgaag tacagtggcg caactttggc ttactgcagc ttccaccttg ggctcaggca
60481
       attettecaa eteageetet caagtagetg ggactataga catgtgecae catgeetgge
60541
       taatgctttt tttgtagaga tggggttttg ccatgttgcc caggctggtc tcgaactcct
60601
       gggctcaagc agatccacct gccttagcct tccaaagtgc tgggattaaa ggtgtgaacc
60661
       actgtgcttg gccactgtgc tttctaaaaa tgcctgtggc ccccttcttc actcgatgtg
60721
       gaaaattgac cagggcttct ctggcccttt agtaagttgt agtagtatgg ctcctaaatc
60781
       tttttccaag gattgggatc ctggctgcac atcttaatta cttttggagc tctttgaaaa
60841
       taccatagcc cactgcaagc caattgagtt aagagtttct aagttagggt cctagtgtct
60901
       atatgtqtac aacagtccac agatgattct aatatgcagc cagccttgag aactgctttg
60961
       atcttgtcat tacattataa acccactgtc cttcatatct gagtcatcct ttattgcctg
61021
       tggttgagtg ttaaaccagt cattttaatt cctagatatt attataattc catagatatt
61081
       tcatctatgt ttggttcctt ttggccatct ggggctactt tttaaaaaaat aaattctgtt
61141
       ctgagacctc gctacaatgt agcctgacaa cagaggctca gggtacccct tacaggtgaa
61201
       acaaagctca tcatgaacag gaatctgggt gcagtggctt acgcctgtaa tcctaacact
61261
       ttgggaggcc aagtcggaag gattacttga ggcctggagt tcaagaccag cctgtgcaac
```

FIGURE 3-Q

```
61321
       aaagtqaqac cctatctcta caaaaaagaa aacaattagc tqqqcatqqt qqcqcacacc
61381
       tgtagtccct gctactccgg aggctgcagc aggatgattg cttgagccta gaagttggag
61441
       aatgcaggga gccatcgtta tgcaactgta ccccagcctg ggcaatagag caagaccctg
61501
       tctttaaaaa aaaaaaaaa gaaaacatta tgtttagaat atgtaggaaa agatgcaagt
61561
       ggggatctga attgttacag ctttcttttc tgtcttttgt gtggtatacc tgttcgtgtg
61621
       tgtaactttg gaattagtga attataggtg ggagcctgtt ttaaccccta gagtgtctta
61681
       tctgtacaaa tctcataatt tatacatact gcttgcagta tataaaactt cctttttttg
61741
       ctcttttttt tttttttt gagtcggagt ctcgctctgc cgcccaggct ggagtgcagt
61801
       ggcatgatct tggctcactg caagctccgc ctcccgggtt cacgccattc tcctgcctca
61861
       qcqtcccaaq taqctqqqac tacaqqcqcc caccaccacq cccqqctaat tttttqtatt
61921
       tttagtagag acggggtttc accatgttag cgaggagggt ctccatctcc tgaccttgtg
61981
       atccgcccgc ctcagcctcc caaagtgctg ggattacagg catgagccac cacgcctggc
62041
       ctttttttt ttttaataaa tgtttcttgg cagatagttg ttctaaaatg tgtccagtgg
62101
       tattgaaagt gttaatacca agaagttaca ttggcagttt ttcttgtttt cagacctgga
62161
       ataatgcctt tggctcaatt taaaaataga atctgtaatg ttagtggaaa ttaaacatcc
62221
       tgaatagagt atggcatgta agccacacta agccagggtt tttaaaaaacg agactaacag
62281
       gctgggtgca gtggctcatg cctgtaatcc caacactttg gcaggccaag gcaggaggac
62341
       caagctggac aatatagtga gatcccatct ctaaaaacaa ttttaaaaaa aattaggtgt
62401
       ggtggcatgt gcctatagtc ccagctactc aggaggctga agtgggagaa tcacttgagc
62461
       ctagaagttt tagaccagcc tgggcaacat agtgagacct tgtttcttac agaaaattaa
       ttagccagtc atggtggcat gctcctatag tcccagctac tagggaagct gaggttgttg
62521
62581
       taaccatgcg agttatagag aaacgccaca ctttgagaca aattaaagag tcctttatta
62641
       gccagcgacc cagagacagc tcacgcccaa aattctctca gccccgagga aggggctagt
62701
       tttgttttta taccatggtc taaataggga ggggggattt tagctgaagc aatttttaca
62761
       gaaqcaqaac tggcagaaag ttaaaaaaaat taattggtta caaatgcagt tacaaaaaaa
62821
       taaacagttc caggtaccgg ggcttaaact atcacaaaga gataaatgta ggggttttgg
62881
       gtgccatgca ctgcgcgtgc ccccaggagc tgctggtgca actcgcctca gcatctcatc
62941
       aacaggtgca ttcctggacg tgctttgagt cagttttaca ctagctatgc ctggagggag
63001
       gtgaaagggt ttacaagtga agaagctaaa atggagtctg tccggctctc tctctgctag
63061
       gagagagtca ctcgggttaa aacaaggtag gatatcacaa ggtgggatga tcacttgagc
63121
       ccaggagttc aaggttgctg tgagctagga ttgtgccact gcactccagc ctggacgaca
63181
       qaqtqaqacc ctqcctcaaa aataataaat ataacaaaac aaattaaaaa ttaqqctaac
63241
       accaactgtt atgaaccatt tactttatat ttttgtgttt tcttcttacc acctagtaaa
63301
       ccatcatact ctgtgtgtta taaggtttct cagaaagact atataagtaa caaaaataat
63361
       gataattact atttattgag ccagcagcat aggataacag tgggtgtttg agatgtgaat
63421
       actgtcccct agaattgggc agtgcactgc catacacggc agttttacat tgggcactta
63481
       tgtgccaggt accaaattaa atgcctttca tacatgattt catttattgt tcagggcaat
63541
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63601
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63661
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63721
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63781
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63841
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63901
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63961
       tcaggatata ataatacctt tctctgctgg tgatggtgca ccttgtacac taaaqctctt
64021
       aaaagaatac ctagcatata cctaacgttt gtgagcaact gctgttagct attacttccc
64081
       ttttactttq qatqattctc ttaaactttt tqtttcctta qqcaqcqtqc aatqttqccc
64141
       cacgtggcgt gtatgtttgt ggtaacacca cgaccacctc tggtctgacg gtaactcttt
64201
       caaaagatag ttcctctgga gattttgctt tggaagctgg tgccctggta cttggtgatc
64261
       aaggtgagag gccaaaggga ataattagtg attctgggac tttttgaaaa gccttttcct
64321
       tttcagttaa tttctttaca ttctgtttaa qaqaaacatt tagatagcaa agtcctaacc
64381
       agtaagttga cactgtcaga aataatcatt ggaaatgcag tatcatcatt tttatactac
64441
       agaattggaa ctgtacttaa tgtcattcat tttcaqaatc ttataqccga tacaagtata
64501
       tgtaaaaatc aaataaatat gtgtagctcc ctgaacttcc catttcatac cacctatcaY
       atttgtgatc attttttta aaagcctgtt ttgaagcttt gtagtaagct ccctgtatgg
64561
64621
       tgggatttgg atgtcttgtg gactgccatg ttcccattgc ctagtacata ggggcacagt
64681
       aaatacttat tgaatgcgtt actatgattt agctctaaat agtttggaaa ccttggcact
64741
       gacaaaaagg tggatgtcat cctttgctca cagaggactt gcaataggag attacaggtg
64801
       ttactttcga tgttttttc tttttatgag acagagtctt gctctgtcac ccaggctgga
64861
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64921
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64981
       tttagtagag acggggtttt accatgttgg ccaggctggt cttgaactcc tggcctcaag
       tgatccaccc accacacctc ccaaagtgct gagattacag gctacaggcg tgagccacca
65041
65101
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```

FIGURE 3-R

```
65161
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65221
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65281
       acatgtttcc atgcatgtgt caggcagtgt ccagattcca gtccagttaa ggtcgttcat
65341
       tccttctggt ttgccagtga cttccatatt ctgaacccag qacctggtag ccacatttga
65401
       cacaqttaat cactccctcc tccttgagac cSttgaaact ctcattggtt tccaggccac
65461
       tttacttcat tctttacttc tttctcagtc gtttactggt tcttcatctc cacaacctct
65521
       tacctgttgt taactaaggt gcttagttct tggacctttt gtcttctggg tctgtattta
65581
       ccttcttggt gatcttgtat cgtttcattg gctttaccta cctatccgtg aaaaattcta
65641
       aatttataat ctcgtttccc ttaaatatca ggcacatact tcttattgtc tacacagtat
65701
       ctccacaaat ttctcaaact taacatqtct aaaattaaaa tcctqatttt qcctttcaaa
65761
       tctattttca cagtcttcct catctcagta aatgacaact ctcattataa ttgctcaaat
65821
       cagaaaacac ggagccatcc ttgacttttt ctcatacccc acattaatct gtcagcaaat
65881
       cttgttggct gtaccatcaa aatatatctg ctatctaacc acttcttcat taccctggtc
65941
       catggcacca tcatgtctca catggattat tactgtaatc tcctaattgg catgcctgta
66001
       accacgettg eccetteetg ttgtttttaa tacagtaate teattaaaaa ttagattgtg
66061
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66121
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66181
       ctgcttccca tgtctcctct tctctagctc cattggtggc tctgccttgg acaccaccag
66241
       cacaccagge acgteacatt tecteataag ggeetttgta ettactgtte Ygtttgeetg
66301
       gaatgttctt accccagata gagctgcaaa ggcttgtttt ctttccccct taatgttttg
66361
       ctgaactgtc ctgaccccag tgaggtcttc cctaaatacc gtattttaac ttataacctc
66421
       ccctgcccct gctgcacctt agcagacctt attttcctta ccctaatcta ctttttcctt
66481
       ccatagcact ttttaccttc tatattgttt acttttttat tgcctggacc ccctattggc
66541
       tgagtagaac ataagcttcc aagagcaggg aattttgtct tttcagtgcc atactcggca
66601
       ttcctagaac atagtactgg tatatagaag gcattcagtt tattgaattt ataaatttat
66661
       tgcatttata tctagtaaat atttgctgaa taaataaata ccaaaaacat gtatctcgtt
66721
       attatatagc tcatcagaag tgagaatatc tttgctaagt taccaggtaa aatatagtaa
66781
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66841
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67021
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67081
       67141
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67201
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67261
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67321
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67381
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67441
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67501
       gtataggcag acggagcaat aggcagctca gggaaaaggtg gagataaagc ctgtgagtct
67561
       accactgcta ggatcttagc acaggcaggg aaggctcact atgtcccaga gctccacatt
67621
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67681
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67741
       agccccctt gcttcccct cctaaatcat tacgttacca aaaagtgcaa actgtagctg
67801
       gaaaggaaaa aatgggtcaa aattacattg ggaaaagcgt attgacaaga attcatatat
67861
       actgtgtcgg aagaaatagg tttggacaga gcagccgtta ttatacatga gcaaggcaaa
67921
       gagacagcat agcagctgtg aagaaataac gtaggaagaa agaaagacat ttaatatgcc
67981
       cagtaaaaga cctcactgta gacaaaatta taatctaagg aacaaatgaa aatttcccat
68041
       gagtgtttca tgtttgataa gaacattaat gaaatagctc aaaacaaaaa gataaggcta
68101
       tgagagacaa attgatgact aacaatgtta ttaaactaat atataaaatt gacactgctg
68161
       aatgagaaat tataaagagg aaaggcttga gataattgca gtgaatgcaa aagaacaaag
68221
       cttaatacaa ttagagggga agtaacagag atagagaaca aaggaaattc aacataattg
68281
       gttccatgaa gtagaaaacc caaacatgaa accagaaatg gattcaagga tagaagaaaa
68341
       tctgttgaaa taaactaaag gcactgtatg tgccaggaat gtcatgtcta ttgcacaagt
68401
       tattggggac tetetaacat tagtttacaa tatttgtett ecetgeteee cataccagtt
68461
       aggttagcag ctggggatca aaaagactaa tcagcagtta ttttccatat actcctctgt
68521
       gctagtaagg cttacttagg tatagagtag atacggaggg gtttaaccac agcaaagccc
68581
       ttcagatgtg acccccagat actaacctaa ctggtatggg gagaaaggaa gacaagcatt
68641
       68701
       tacagtgcct ttagttagtg gtggtgcatt gtattatgtt taaagagatt aagtgatttc
68761
       cctataagtg catacaagtg tatagtcaat acctggtata ggttttgaaa tatacttatt
68821
       aaacataata aacttactat atgtgtattg aggtatactt attaaattgt gcatgtgtgt
68881
       ttgtgtgtgt atgtaacatc acacccattt gaatttaact ccttaagcat tttgagaatt
68941
       acticttacct cotottogtt tittgtaatcc toacaacata gtgctgtgcg tatgaaaaat
```

FIGURE 3-S

```
69001
       qctaaaqqaa qaactattac acaaaactta qttaaataaq acaaatqtat taacttqctq
69061
       cagaacaaac agtaattctc cattgtatga cattttataa ttttaactgc tgaaacaaat
69121
       ggaaataatt attgtgaaac aatttctatc ctataaaatt tggaacttga ccaaagaaaa
69181
       aatqtttttt ctgctttatt ctacttcgat tgtaggtatt tgtggaatcg atgaatttga
69241
       taagatgggg aatcaacatc aagccttgtt ggaagccatg gagcagcaaa gtattagtct
69301
       tgctaaggct ggtgtggttt gtagccttcc tgcaagaact tccattattg ctgctgcaaa
69361
       tccagttgga ggacattaca ataaagccaa aacagtttct gagaatttaa agtaagtctc
69421
       ttcaaatatt tataccttta atgtattgaa tcactttaat tcaataagaa aaagaaatag
69481
       ttcacagaac tacaggggaa aaacatggat atttcacaga agttataaat gtccaataaa
69541
       tqcacaaaaa tqtqcttaaa cactqcaqaq taaaacaatq aaqtacqaat qaqatccacc
69601
       agattggcaa acattttaaa tattaatcat ttttggcaaa gtagtgtgga aatggtttct
69661
       cagtggctgg gcgggtggct tatgcctgta atcccagcac tttgggaggc tgaggcaggt
69721
       ggatcacctg aagtcaggag tttgagaaca gcctggccaa catggcaaaa ccccgtcttt
69781
       agtaaaaata caaaaattag ccaggcatga tggcagccgc ctgtaatctc agctacttgg
69841
       gaggctgagg caggagaatt gcttgaacct gggaggtgga ggttgcagtg agccgagatt
69901
       gtgccaccac actccagcct gggtgacaga gtgagacgcc atgtcaaaaa aaaaagaaaa
69961
       agaaattgtt tctcacatac acaatttatt attttgtggg accccttggt gtgttgatca
70021
       caattctaaa tgcacattct gtttgttata gccactctac ttttaggact actgttcaca
70081
       gaaatagtca tacaagtgca caacgatagg tttatagcat gggtattgca gcattattgc
70141
       tgccaaacat tggaaacacc ttaaaactat aataagactg tagtgattat gagaacgaaa
70201
       gtggctttat atgtactaat gggggaacat gtctgtgctg tactattaag tgagaagagc
70261
       acattaacaa acttaaatat gtggtatgat cctgcttttt tcaaaaacaa tgtttatatc
70321
       tgtatgtatg ctttctcttc taattcattc tgtacagctt ggacaaaatg tgtggaaaag
70381
       gaaaaatata tttaagtgat acaaaagtga gaaaaagaca aaagagtacc tcctgaaaaa
70441
       ttagagcctt aagcctagtg ggggtggagt taatttcttg ttgtttaata atgtatcaat
70501
       atagaaacag tctttgatac atagtgaaat acacaatgtg tacttggaga tttagggtat
70561
       ttaccaccac caccaaaaaa atcaacctac tagtagtttt tctttagtaa aatgacaaag
70621
       tgctatatta gaaaaatcag aaagatctat tgaacaaaaa tccagcagac ttggattctg
70681
       ttttttaatg gtatcatgaa caaaatactg aactagctaa cctctgatat gtcatgtagc
70741
       agtattgcca attagtgata ataggacatg aagaattcag tgggtttggg ggtgtgagaa
70801
       agagccatgt cctcaaccta cccagggtag atacatgtaa ttcttgtgcc catgttgcag
70861
       tggttggata tatcgaatcc aagaagctat ttgcttattt ctttaaccta aatcttggtt
70921
       tttcaagttc tgcgtggaac ttgagtagta aataagtgag tagacagttt tctagttttt
70981
       ccttttgatt ccaatcattg tttcttcttt ctttcatcct tcatagaatg gggagtgcac
71041
       tactatccag atttgatttg gtctttatcc tgttagatac tccaaatgag catcatgatc
71101
       acttactctc tgaacatgtg attgcaataa gagctggaaa gcagagaacc attagcagtg
71161
       ccacagtagc tcgtatgaat agtcaagatt caaatacttc cgtacttgaa gtagtttctg
71221
       agaagccatt atcagaaaga ctaaaggtat aaatgtttct tctccttatt cagtttggtt
71281
       ctgtttgaat gtcaaagttc agtgtgtggc ttattgtaga gcagtaggat Wcaaactttt
71341
       tttttaccaq aacttttaa tatttccata ctaqaqttta cqtaaacttc atctqaaata
71401
       atccaagtcg gcctggcgtg gtggcttatg ccggtaatcc cagcactttg ggaggccgag
71461
       gcaggtggat catgaggtca agagatcgag accatcctgg ccaacatgat gaaaccccat
71521
       ctctactaaa aatacaaaaa ttagctgggc atggtggtgc gtgtctgtaa tcccagctac
71581
       ttgggaggct gaggcaggag aattgcttga acctgggagg cggaggttgc agtgagctga
71641
       71701
       aaaaggaatc taagtcagct aagatgagac ctacagataa agtgtttggt tgatttggag
71761
       agtettttag aattgtatat ttatetaaac aagttattta tttattetga gacatagtet
71821
       cactettate geteaggetg gagtgeagtg gtgtgatett ggeteactge aacetetgte
71881
       tcccgggttc aagtgattct cctgcctcag tctcccaagt agctgggact ccaggcacgt
71941
       gccaccacgc ccggctaatt tttgtatttt tggtagagat ggggttttgc tgtgttggcc
       aggctagtct tgaactcctg acctcaggtg atgtgtcctc cttggcctcc caaagcgcag
72001
72061
       ggattacagg cgtgagccac tgcacctggc ctaaacaagt tattttagca gaaatatttt
72121
       atttgctact tatccttgtt atcttgggcc ttttaatcat gcttcaggtg gttcctggag
72181
       aaacaataga toocattooc caccagotat tgagaaagta cattggctat gotoggcagt
72241
       atgtgtaccc aaggctatcc acagaagctg ctcgagttct tcaagatttt taccttgagc
72301
       tccggaaaca gagccagagg ttaaatagct caccaatcac taccaggcag ctggaatctt
72361
       tgattcgtct gacagaggtt tgtttctttt tatggtcatg ctttttttgg cttaaagggg
72421
       aagggtgtgc cttgacttct cttttgaagt attttctgca taattgactc cattttcctt
72481
       tctatagaga gatgttagaa atggatggat gaaagttttt taaaagattt tgtcatgtct
72541
       ataacatatc caagtatagc tacttctttc tagtcacaga atcaattact tagcatgcaa
72601
       cttttcttt gttttcttt gactgactct taggagactc ctggaatatc tgaaaagtgg
72661
       ttaggttaac taggagtatg agacccaagt tgagtatatg ggaacatgga atgtgtcagg
72721
       tatcttgagt attttatttt tttacatgac aggtccacaa ggatagttcc tgtgttttta
72781
       acagcagtaa tatctattca cagtttgaaa_tactaagaga actctggcag taaaaattag
```

FIGURE 3-T

72841	ctagctcaga	gtttgggctt	tttgctccta	aaatctgatt	aattcttctt	tgttgtttta
72901	ccatattggt	taggtatgat	ttcctaaaag	taaaaggcaa	gggaaaacca	agtgtatttc
72961			gatcactcag			
73021	tatccttatt	ttaagtgagt	tgtaattttc	atagtcaagg	tttcacagat	tttttttgtt
73081			ctccctctgt			
73141			tcccaggctc			
73201			accaccgcac			
73261			caggctggtc			
73321	cctcagcctc	ccaaagtgct	gggWttatag	gcgtgagcca	ccacccccag	cccagagaat
73381	tacttccata	ttttgacttt	tgatgttata	accttcctcg	cctaaaggtc	agtttttgtg
73441	taaaacaagt	aaatgaagta	aagcttagac	atactatggt	aaatatattc	atctttcgtc
73501			tttaaaggca			
73561			tatagtggaa			
73621			ccagttatct			
73681			gggtcactta			
73741	gtttaaaata	tttctcactg	tgtaaataat	ctttacatta	gaaattttt	tgaatgagta
73801	atacatttac	atagtgctaa	aatcagttcc	aaaacctatt	ggagaagagc	tatttaccac
73861			cacccattgc			
73921			caatatatcc			
73981			tgtgtagata			
74041	ttgacacata	aatattttcc	attcttgtgc	ttttaaataa	tgctacaatg	agtaatgttc
74101	tacgtaagat	acttcatatg	tgggtaagtt	gtgcacctac	gtgataaatt	ctcagaagYg
74161			aaatactata			
74221	ttasasatat	tacatcattt	agtagataat	gattcctaga	aggtagaaaa	gaaaaattag
74281 74341			tagacataga			
74401			aaaaaatttt			
74461			tataggccag tggatcacct			
74521			tactaaaaat			
74581	acctataatc	tcagttactt	gggaggctga	acaaaaaact	ttacttaaac	ctaggerage
74641			ttgtgccact			
74701			tatatagtgg			
74761			ccagtggcaa			
74821			tttgtagaca			
74881			atttaaaatg			
74941			ctacttttcc			
75001	atctaatttt	gttaagtaat	ttctaattct	tctaaggtag	atgaattctt	ttgtcctagt
75061			gcgtggtgtc			
75121			ctgtgaataa			
75181			gccatggcag			
75241	gtaaaacaca	ccacaaagga	ttgtgctctg	aggtgtcatg	cagtgatgct	caataaagtg
75301			ttagagaaca			
75361	caagtctttt	tttttttt	ttgagacagt	ctggctctgt	cgcccgggct	ggagtgcagt
75421			cagcctgcgc			
75481			tacaggtgca			
75541 75601			catgttggcc			
75661	ctastsatat	anatttatt	caaagtgctg	ggattacagg	catgagccac	cacgcctggc
75721	ttataccata	aagttttgtt	gatactcaga ctcaaaaact	rgaggergag	cagatcccct	tttctctgag
75721	aaaatcacc	ttttcaaaggc	atttttatgg	tetagteete	accetagata	agaagtttcc
75841			gatccttttc			
75901	tacctacttc	tetetttate	cccagcctgg	tactgccca	teectagaaa	ctactatat
75961	ctctctacta	cctctagagg	tatgcagatg	gatagaagga	cacccatata	acctectasa
76021	ggtacaagaa	tctacagatt	gtttcctgcc	cttagaggg	atccatage	gaagagaag
76081	ctttctcctt	aattcantct	cagagtttgt	aagcaaccgt	gaggttctac	taactatat
76141			gaattgacag			
76201	aactgcctca	taataagaaa	aattaataat	tattgactcc	caaccettte	agctaatttc
76261	taacaactta	ccttctatat	ctaagtatcc	tattggtatg	gcatcacaca	gtacttttt
76321	ttttttctct	tttatttaga	cagagtetea	ctctgtcatc	caggetggag	agtacagtgg
76381			acctctgcct			
76441			caggcacctg			
76501	ttggtagaga	cggggtttta	ccaagttggc	caggctagtc	ttgaactcct	gacctcaggt
76561	gatctgccca	cgttggcctc	ccaaagtgct	gggattacag	gtgggagcca	ccgcgcctga
76621	catcacacag	tccttgaccc	atcaattttc	tctctttatg	tgattcagta	ctagggtttg
					-	-

FIGURE 3-U

76681	agggatcttg	tagctgaaaa	ttttaccaac	ctggctttag	tccctctcca	gttgatctca
76741		gaccctctag				
		-		-		_
76801		tacaacttgc				
76861	ggccacaaaa	tctagttgtc	tgcctgactt	cttgtgggta	tggctttcta	agagaccaga
76921	ctagagactg	acctagcaga	gatattttt	cccattagga	aagtaagtca	caacccaacc
76981		aattttttt				
77041	aataggcact	tcttatttaa	tgatgagaag	ttgcttgttg	acttacagtc	tagaatgtgt
77101		ttctctgcat				
77161						
		tgatttcttt				
77221	ctggctctcc	tgaatgtcat	gtttctactt	tgtagactgt	tcatctgtcg	agcaaactaa
77281	ggggtacact	accctgctcc	ttttctctct	taacctgtaa	cattctcctc	ttgaggcttt
77341		aatttctgca		_		
	-	_			-	-
77401	_	aattcactgg			_	
77461	tgcttaagca	gagtaaatta	ggctatattt	accttttcag	taaaaatgct	atattgccca
77521	tttatggttg	gttatacttg	gtataagatt	tctctgcatg	tctgaatact	catqttqqac
77581		tgtgctttcc	-		-	
77641		tgcttcccag				
77701	ttacatctgg	gcccctgaaa	aaaagaggtc	ttattattaa	gtgtaaacag	tacccacatg
77761		attgtttccc				
77821	_	-				
		gaaaatagtt		-		
77881		aaacacaatg				
77941	cattctttcc	ttagtttatg	agagcaggga	ccttatctga	ctcatttacc	agtatattcc
78001		aatcatgcct				
		-			-	
78061		cttagtaatg				
78121	ctcttcagct	tcgttcagtc	tttgccctta	atgtggtttt	aaacctttta	agattacatt
78181	ttaactggga	agcYgacagt	tgaataagaa	aattcttaaa	ctgtgacata	acttatctaa
78241		cacttagctg	-			
				_	_	
78301	-	tctcctaaaa	-			
78361	tcaaaggtga	aagatcattg	tttttttcta	tttcaggaaa	ctagctcaaa	tattttacat
78421	agctttttaa	aatctgaagc	agtgtagcag	attcaaatct	gagatatgcc	acttactact
78481		ctggcaagtc				
78541		aagaaaagca				
78601	aatgttttt	catccgtaaa	atgggaataa	gaatagttcc	taaatcacag	gattgctggg
78661		gggatagcct				
78721		aagcattttt	-		-	
	_	_				
78781		attatgctgt				
78841	ttttaatagt	tttatttgaa	tgactcattc	ctatttgcat	aacgtaggct	tttaactatt
78901		aaggaagctt				
78961		attatacctg				
79021		tgactaatta				
79081	gctgtgaaat	atagctatcc	cattgttgag	gcagggaatc	agcaataRag	ttggattaaa
79141		aattatgttt				
79201		_		_	_	
		tctttccttg		-		
79261		gcatccttta				
79321	agttcattcc	tagagtattt	taaatacctt	ttatttaaaa	tactggtgcg	gccagatgct
79381		atRggacaca				
79441		atgaatcaaa				
79501		gcatttctct				
79561	aaaatatttt	tattccttat	caatccatca	tagtgaattt	cagagtggcc	cctcaataaa
79621		aatgtttgct				
79681		caggacaaca				
79741	ttctttttaa	gcatgctagg	aacttactct	gatgaatttg	ggaacctaga	ttttgagcga
79801	tcccagcatg	gttctggaat	gagcaacagg	tcaacagcga	aaagatttat	ttctqctctc
79861		ctgaaagaac				
79921		taaacattca		-	_	_
79981	gaggtccttg	ttaatatata	gtagaacaga	aacagttttt	acttatttaa	aattcatacc
80041	tgcttcttct	caaaggtttt	cagcatcttq	atagtcagag	ggaaacattg	tagtaagaca
80101		ttttctgact				
80161		ctgttaaatg				
80221	aatcaatgta	atagcacttc	aaacatgggc	tgttacacat	tatggaaaat	taacttctta
80281	atttcaaaag	ttagcttgat	ttttttcagc	taacctaaaa	caaatotaaa	atattctctd
80341		tttttacttt	_		-	-
					-	
80401		tctgtaagaa				
80461	atattattat	ttgagagatt	tattttaaaa	gtaatatttt	gacatgttac	ttaatgggct
					-	



FIGURE 3-V

```
80521
       aaaccttttg atgttttctt ccaggttgct qattttqaaa attttattqq atcactaaat
80581
       gaccagggtt acctcttgaa aaaaggccca aaagtttacc agcttcaaac tatgtaaaag
80641
       gacttcacca agttagggcc tcctgggttt attgcagatt aaagccatct cagtgaagat
80701
       80761
       acacacag tcaaatactg ttctctgaaa aatgatgtcc caaaagtatt ataataggaa
80821
       aaaagcatta aatataataa actaatttaa gaagtgataa agtctccaga tgcagtagct
80881
       cacactgtaa tcacagtgac tcaggaggct gaggtgagag gattccttga ggccagggtt
80941
       81001
       taaacttagc tgggtatggt ggcacatgcc tatagtctca gctacttgtg aggctgaggc
81061
       aggaggattc tttgagccca ggagtttgag gttacagtga gccacaatca caccaatcac
81121
       tgcactccag cctgggcaat aaagtaactc ttgactcaaa aaaataaaaa aaattgtagt
81181
       ggtagccatg tgttaattgt taaataaatt ctccaaaggg ctaaaagtaa attacttata
81241
       aattttttat agttgtattt ttgacctgcc ttttatatgt atgaatattt catagttttg
81301
       catatcagat gtaggcatac agacaaatac ataaaccaat gaatatatta catattctgt
81361
       gttccaataa aactttattt atggacacta aaatttgaat ttcataaaat tttcccatgt
81421
       caaqaataca aaatacttga qttttgtttt taqctattta ataataqqtc tcatttattc
81481
       cacaggctgt agtttgtagt cttgcttgaa acaatagaaa cagactgatt aagcaggaga
81541
       agttttttga aagaattttg tttggctcac ggaattatYa gaaggcaggt gaaccaggag
81601
       ggtaagcttc cagcagcaat ttgtaaaacc atgccttaga attggactaa ggaagaagct
81661
       gctgacactc cactgccaca cagggcactg gaagaaagtg ctgctgcctc cctgcccac
81721
       ctttqccact tctqcaqcaq qaataqqtaq aaqaatqccc ccacccqcac cqqaacaqca
81781
       acaaaaggat tctgcatgag atgcctccct aaattgctga attcaaaaaa gaagttgcat
81841
       acaaagacat ctgattgaaa aagggtatgt tatatgcccc tttcataggc tgctagggag
81901
       ttttcctggt tctactttca ggtggtggga tcaataagac cagaatttct catatgttgt
81961
       gagaggattc aaatgttaca gggttgccag ccaaactatc aatcatgtat aaatccaaca
82021
       aacactttgt aacatacaag aactcaggaa atgtgaacca ttgttggaga atctactaaa
82081
       atacggcttc ccgcaaacga agatgaatgg aaaatgtaaa taaaaagaac tggcagtgta
82141
       tatcagatgt ttaactatag gaccagaact aagatgtgga gactattgcc atagaccaca
       atgtaaattt ttaagtgagg aaggaaaaat caggaatcaa aaggggccag gtgcagtggc
82201
82261
       tcacatctat aatcccagag ctttgggagt tcgaggcagg aggatcactt gaagccagtt
82321
       ttgagaccag cctatgcaac acattgagac cctatctcta caaaaaatag attagctggg
82381
       cacggtggtg catgcctatt gtcctaccta ctgtggaggc tgaagtagga aatcacttga
82441
       gcccgagagt ttgaggttac agtgagctat gattatacca ctgcactcca gcctgggcaa
82501
       gagagcaaga ccttgtctct taaagaaaaa aaaaaaaaat ggagaaagta gatagtagta
82561
       taaatatagt gaaRtcttta aaagctagga gttaaaagat atttaaagca aataactcag
82621
       gcatggtggt gtgtgcctgt agtcccaqcc actaaggagg ctgaggcagg agaatcactt
82681
       gaacccggga ggcagaggtt gcagtgagcc aagatcgtac cactgcactc cagcctgggc
82741
       aacagagtga gactctttct ccaaactaaa taagagatat ttaaagctga aaaaaaatct
82801
       attaatagaa tttaaaacat ttcacaaaag tcaacacata aataatatca accaaaataa
82861
       agtggtagac agaagagaaa atatactaat ttattgttca aagaggaaaa taagtctcaa
82921
       aggttaaggc tattatataa atttatttt aaaaagacat aaacctacat tttcagaaga
82981
       agaagttcca tgtttcctta gattatgtat ttagcatcca ttaatcacag ggccaaacta
83041
       acaacaaaag ttgtttagct ttcccttaca atccaqcttt tatqqqtqtg caaacatcac
83101
       attacagtcc ctccaaccac aaaccccaac atatagtatt tcacttcctg cccaatagtg
83161
       ggtgtcccca cacctttcaa ccactgtagc aacaaagctc tggcctaggc ttttcacttg
83221
       cttctttact gcctgactga ctttggtgtt tcctcatgtg gcctggtgtg gcatggcacg
83281
       ccctcttggg agatgaaagt aatcttccat aggcaattgt ttctgtgtca ccattgctga
83341
       ttaaaacaaa tcctaagtac aaatgtcaga acagaaacat gcaaagcaag aaaacattac
83401
       83461
       getetttttg etcaggetgg agtacagtgg egegatettg gtteaeegea aceteegeet
83521
       cctgggttca agcgtttctc ctgcctcagc ctcccaaqta qctqgqatta tagqcatqtq
83581
       ccaccatggc taattttgta tttttagtag agacggggtt tctccatgtt ggtgaggctg
83641
       gtttttaact cccgaactca ggtgattgcc tgcctcggtc tcccaaaaag tgccgggatt
83701
       acaggcgtga gccattgtgc ccagccaaaa gtttcttttt caagagatgg tggtcttgcc
83761
       atgttgtcca gtatggactt gaactactca gctcaagcag tcctcccacc tcagcctcct
83821
       gaatagctga gactacaggc atgcaccact acacctggct gcgagatgaa attttaagag
83881
       atgggggtct tgttctgtcg cccaggctgg agtgcagtga catgatcaag ccgtgatctc
83941
       ctgggctcaa gcaatcctcc tacctcagcc tcctgagtag ctggaactac aggaatgcaa
84001
       caccatgccc agctaatttt gatttttagt agagatgagg tcttcctttg ttgcccaagc
84061
       tggtctcaaa ctccagggct tcctgagtag ctgagactac aggtgtgagc caccatgccc
84121
       agcctcctct cttttccaat attgtgttaa gtaaattgta ttggtggtaa tcaacttgat
84181
       catttcattt ttaggataga gatatcaagg tgagggtata actgaacgag aagaggaata
84241
       aacaccaccc tgtgattgat ggatctttat agctctcctt tgataaagaa gggaaatatc
       gtacttacat tagcatgtta tagttgctgt tgttatacag aagaatatta aacaatattc
84301
```

FIGURE 3-W

```
84361
       atatattgtt tatgaatgca ttgaattcat aaacaatggt atggatattg actagccaaa
84421
       gaggtggata aatgtagata caatgatacg gtgatttggt attcagtgtc cattctgctc
84481
       tcctagtgtg ccttcctata atgcaggggc tggaaggtga gaaaataacc acatttccca
84541
       qactcccttt qcaqqtaqat ttccaqatqt qaattqqqtt ccactqatca qacacccatq
84601
       tgtgagattt ggaatgcaga actgaggaga gagccatctt cctcttgctt gtgttctggt
84661
       ggcatgtgtg gttgaggaga catttaattt ccctgcagca gaattcttgc agtcagttgt
84721
       tgaggcaagt ggcgtggtgg atgcaaccct gattcttcac ctttctcatt attgtggggt
84781
       agcagcgcct ctggcaagcc agacagacct gcagtgtttt tctgggagtt aattctggag
84841
       acccagtatg gaacccactc ctagcccttg tgacaatatt gcaagcatcc agttccctgt
84901
       tttacagtcc ttttaaatgt ggctagctac agtagtttgt gtttcctgca actaatcact
84961
       catacatctg tatctaaagc actccacctg ggtcatgtac tatacttaaa attataaggc
85021
       aatattaatt cacaaaacta cctactcgtt ttatttaacc ctcagaagaa ctgaaaacaa
85081
       aagctatacc aggcttqctc tagaqcqtqq qcttqggaat qgaaaggcag agtgcaccta
85141
       ttgaattcca tcatcagttt ttctatacca tggagttact taccatgtgt atacataaca
85201
       ctgattaaaa attttaaaaa aaaggttaaa acaaaaactg agccagattc tgacatttaa
85261
       atcagaatta ttcttagtac atagacttgc aaagtcactg aataattcSt tgggactaca
85321
       gactettagt etttgettet agaaatgtat agtaatttea acatgteata tatatagaga
85381
       gagtatatat gtgtatatat atacacacac acacacta tatagagtat atatatacac
85441
       tccatataca gtatatatac tagtgtgtat atatatatac actagagtat acacactcta
85501
       gagtatacac tctataaagt atatatatta tatatactat atattatata tactatatac
85561
       tctacagtat atatatacac tatagagtgt atatatatac tatacagata tgtatagagt
85621
       atatatactc tatatataca ctatatatag tctatatact ctagagagta cagtatatat
85681
       atatagtgta tatatactct atggagtgta tatatattct ctttctctcc atatatatat
85741
       atatagtaat cagcttcctc aggttgaaac atctagatat attgaaaaca ctggatagtc
85801
       tgcaaactcc tcttccttag agaatgtata ttatctttag tattaaagtg actcttgtaa
85861
       qtcctqaqaa acacctcqqa acactqcatt cacqtqtttq ctaqqcaqaa tagtacccac
85921
       cctgcaagac atcacatcct aatgcccaga acctgtgaat gtgttaggtt acatagcaag
       gggaaattaa gatggctaat caggtgacct taaaataggg agatcatctt ggattatctg
85981
86041
       catgggtcca atataattag aaagaacctt taaagtggaa gagggaggca gaagagagcc
       agaggaagat gtgactacag aagaaggcac ggatgcagca ttgctggctt tgcagatgag
86101
       ggaaggaggc cttcagccaa ggactgtggg tggctctaga atctttttt acatctcagt
86161
86221
       atgtatgcca cagttaaggt ttttgttttt ttatttttga gatggagttt cgctctgtca
86281
       tocatgotgg agtgcaatgg tgagatotog actoactgca acttocgcog coggggttca
86341
       agcaattctc ctgtctcagc ctgagtaact gagattacag gtgcgtgcca tcatgcccgg
86401
       ctaatttttg tatttttagt agagacgagg tttcaccata ttgatcaggc tggtctcgaa
86461
       ctcctgacct caggtgatcc gcccacctcg gcctcccaaa gtgctaggat tacaggtgtg
86521
       agccactqtq cccaqcctca caqttaaqqt ttttaaacaa tctgatttaa ctgaataaaa
86581
       aatgctcgct tgtgtggcga catggttttt aaaaatgtaa acagagctgg gcatggtggc
86641
       tcacatctgt aatctcagca ctttgggagg ccaaggcaag agaactgttg aaggtcagga
86701
       86761
       aattacctgg gcatggtggc atatgcctgt ggttccagct actcaggagg ctgaggcagt
86821
       aggattgctt gagcccagga gtttgaggct gcactgagcc gtgatcacac cactgcattc
86881
       cagactaggt acagagcgag tctatgtgga gtgcaatgtc tctaaaaaaa aaaaaatacc
86941
       caaaatataa acagggacta tgaggtatgt acaggaaatt aatagctgaa gaatatttta
87001
       ccatgttcaa aaactaaatt cttcatgtgg ctgagagaag aaagaaaaaa atggtatgtt
87061
       tgtgttccat ttgcaRgtat tacataaacc cattttaaat gaactaaaat gcctaggatt
87121
       tgqqqqqaa aaattatctt gtqctcqcat ttqaaqqttc ttctcaqaaa taaactgttt
87181
       aaagagacca cagtactggt ttaatttttt ttctgcagga ccagagggaa acaggtggtt
87241
       taccattttt ggaaactctg tcacatgatc tgaatagaaa ggatagttgg atgtaacgtt
87301
       aaagctttct gaaccagcaa tccccaacct ttttggcaac agggactggt ttcaaggaag
87361
       acagttttcc acggacctgg atgggggaat gtttcgggat gaaacttcca cctcaagtca
87421
       tcattagtta gattctcata aggaacgcac aacttagatt cttcgcatgt gcagttcaca
87481
       gtagggttca ccctcccatg agaatcgaat gcgctgctga cctggcagga agcagagctc
87541
       aggtggtgat gctcgcttgc ctgccgctcg cctcctgctg tgtggcctgg ttcctaacag
87601
       gccatggatt ggtactggtc cacagcccag gggttgggga cccctgtaac aaaaggaaaa
87661
       caagattett aaatetttac aggaaggagg aatggaatgg aaaataaage tagttgtaca
87721
       ctaaatgatg ttaacaatcc ctttatcacc tttaaaatat gagcagagag gaaagaaata
87781
       ttaaaaccaa cccttttac tttcttattt qtaqataatq cctqccttac qaqaatgtta
87841
       tttMttttaa aggttccaaa acaaccatat aaaaacttag taatgactta attgttcaca
87901
       tattctagtg acatcagtac attttcagga agaaatgtgg aaaggttggc actagaagtt
87961
       gacataagaa ttagtttagc caggtgcagt ggcacatgcc tgtagtccca gctacacagg
88021
       aggctgaggc aggaggattg cttgaagcca ggaattctgg gctattatag tgtgctatgc
88081
       tgactgggtg tccacactaa gttcggcatc aacatgttga tctgggagtg gtggaccacc
88141
       aggtttccta aggagggatg aacctgccca ggccagaaat ggagcaggtc aaaattcccg
```

FIGURE 3-X

88201	tcctqqtcaq	tagtgggatc	gccccgtgaa	aagccacggc	attctagcct	gggcaacata
88261		gtctcttaca				
88321	-	ataatttaaa				_
88381		aggagctatg				
88441		tcaaatctta				-
88501	ggtgcgttta	ttacaatgat	tgaaacctgt	gccttatttg	gattactggt	tattcaaaac
88561	acatctttgg	gtttagtgcc	tggtaattac	agcttactcc	tgtaagattt	aactgtcatt
88621		gaatttttt				
88681	gcaggggcac	aatctcggct	cactgcaact	tctgcctccc	tgggctcaag	cgatcttccc
88741		cctgagtagc				
88801	tgtatttttg	gtagagatgg	cgggcggggg	gagccggggg	gtacggtgtg	cggggcaggg
88861	gggtggggg	gtggtcctca	cagtgcccag	gctggtttcg	aactcctgag	ttcaagcagt
88921	ccacccacct	cggcctccca	aagtgctggg	attacaggta	tcagccacca	tatccagctg
88981	ttttaatttg	atttaacttc	caatcaatat	ttacataaga	ctcatttgca	aaactgcctt
89041	ctttacatta	tcttcttctg	gttttaggaa	acaaaaagta	gcccaagttt	attgtgtcct
89101	agactaaata	acacaagtaa	cactacatta	cactgcatat	ctgatataag	aacgcagtac
89161	acatatttct	agactttgtt	catttatccc	caggcagaaa	atattcataa	tagatttgga
89221	ataagatttt	cttctcaaaa	agcttaaact	tcaaatagaa	gtgataagtg	agaaagaatg
89281	attgggttgc	agaattttca	aaagcctaaa	aacagcctgg	gcatggtggc	tcacacctgt
89341	aatcccagca	ctttgggagg	ccgaggtggg	cagattactt	gaggttggga	gttccagacc
89401	agcctgacca	acatggtgaa	atcctgtctc	tactaaaaac	ataggagtta	gcagggcgtg
89461	gtggcatgcg	cttgtaatcc	cagctgcttg	ggaggctgag	gcaggagaat	cgcttgaacc
89521	tgggaggcgg	aagttgcaat	gagccgagat	agcgccattg	cactctagcc	tgggcaagaa
89581		attcatctca				
89641	ctaaaaacag	gttccaagaa	gttgtagcaa	agaggtaatt	tgttccaata	tacagcacag
89701	tcatacacag	cactttgcaa	cttaaccaag	gaaaacatta	aaagtggcaa	gacaatacta
89761	ccctctaggg	gccaaatttt	tatgttcaca	actcagcaaa	ggatcaatga	aaggatgaac
89821		ataacaggcc				
89881	tcttggggta	agcactacat	gattgactac	agaagttggg	ataagacacc	tgaccagtac
89941		cttatgaaaa	_			
90001	aacttcatga	aacgtagaat	ttatatatag	atttttattt	atatttttat	tacagactta
90061	ctattctaat	tttttcccca	tttgggaaaa	aagttcagtg	acagatattc	ccagtccctt
90121	cagacatatg	aggtgcctgt	gtgtttaatc	tacttggata	gaaattatta	cagaattcat
90181	aaaacaggaa	atgaacatta	taaaccagtt	actaactgta	gaatattttg	gtttcctctg
90241	Ycccctgccc	tgctctaaac	tctacttcac	tgggtttctg	cattttctcc	atcctttatc
90301	ccagattaac	ctgttcattt	attgacttct	gtcaagttct	agaaaatgag	atcaaagact
90361	gatagctgga	tgttctcccg	tcttaaaatg	ttagggaaac		

FIGURE 4-A

>11:10442001-10539300

```
tgtgcttgta tcattgaccc tttatgatta gtcaattctc tttatttatt ttttttgaga
61
       ccaggtctca ctctgtcacc caggctggag catagtggtg tgatcatggc tcactgcagt
121
       ctcaacctcc tgggctcaag cRatctccct acctcagtct cccaagtagc tgggactata
181
       gttgtgtgcc accatgccag ggtaattttt ttatttttat tttttgtaga gatgggtctc
241
       actatgttgc ccaggctggt ctttaactac tgggttcaag tgatcatcct acctcagcct
301
       cccaaagtgc tgggattaca ggtgtgagcc actgtaccca gcctctttat tctttaaaat
361
       aagtttqtta aactgaatca attaggttct qtqcttccta cttcttaccc cagaatagtc
421
       tatgattatt gctttctaca tgttctagtt ttatttataa tgtgggggtt taaaattttt
481
       acttettaga attttgggag tgccttgctg atgaccacat gtactgctta aaggaggtgg
541
       gatggggaga aggagaaata gatcagtaac tagaaaagga gaaacattta gaaacaaagt
601
       atttgatggg ttctgaactt tttatgcaac ttgaccacaa attcttaagt tcatctggaa
661
       gaaaaaaatgc agaagtctag ccaagaacat ttKgaaaaag aacaatagtg aagaattttc
721
       cctattagat Rtcaaaatat accataaagc tatagtggtt aaaacattgt gggattggca
781
       caagcataga caaataattc agtggaactg aacagagact ccagaaacag attcatctac
841
       atgtagaagt ttagtatatg atgaatatgg tatttcacMc ttgatcttag ccaaaagcct
901
       gagaagtaat gaatacggta tttgaaatga cagggcacaa agaggggaat aagggtgaat
961
       attataatag atgatgttct tagttatcta tctgggaaat gattggatta gaattcctat
1021
       ctcacacata tacaaatgaa aataaatttt caaatggatt acggaaggaa tactaaagaa
1081
       caaMactaaa atgttttaga acaaaacatt tgagagcagt ttttcaatct tggagtggga
1141
       aagaccattc tgagattcta aaattgagaa gtcttaataa gaaggggctg gtagatttga
1201
       ctacataaac tcgaaaactt ttttgcaagt taagacacca taaaaacatt aagaacacaa
1261
       aagaaagttt ttctgcatct ctgcccctc tctctggtgt ctatctttct aagtctggcc
1321
       tetetegagt ecctgteage ttgtetgagt eteggeteet eccggtgagt eteggeetet
1381
       cccactctga gtcttggcac ctcccactct ctgagtctcg gctcctccca ctctgagtct
1441
       tggctcctcc ctctctgggt ctcagctcct ccccctttga gtctcggctc ctccttctct
1501
       gagteteage teetetete cagagactet teetetttee etgtettgge teetteette
1561
       ctgagtttca gctcctagct ctgagtctct gatcctccct ctttggtttt ctccccagtc
1621
       ttgtctccta ccttttcact caggttgtct cacaatctgt ttcctcaaga aaagtagacg
1681
       agtcctggac agacaaatga tgagtttcat tcatagactg aggaagcaat aaggaaaaaa
1741
       gaaaaaaaaa aagaaaacag catgggaaag atttgcagtg tatatagaac aaaatatcaa
1801
       gattcataag gaatatatag taagtataaa tccatcaaaa aggtacaact ggccaggcgc
1861
       ggtggctcac acctgtaatt ccagtacttt ggggggccga ggtggatgga tcaacttgag
1921
       gtcaggagtt ccaaaccagc ctggccaaca tggtgaaacc ccatctctac taaaaataca
1981
       aaaattagcc gggcgtggtg gtacacgcct gtgatcccag ctattcagga ggctgaggca
2041
       ggagcatcac ttgaacctgg gaggcagagg ttgcagtaag ccaagatcac accacttcac
2101
       ttcagcctgg gtgacagagt gagactccgt ctcaaaaaca aaaacaaaaa aaaaggcgca
2161
       actaccatga gaaaattggt taaaggatat tcacaggcaa ttcaaagaca ctgaaatgtg
2221
       tgcagcttag taagtgctgt gatgcaccSg gctccctcct tcagagccgg gtactccttc
2281
       tocaatgctg ggagtotcag tagcotgtgg ttactccgtg agtotctctc taggagtcgt
       catttattca gaacaaaagt atatcctagc tgggcgtggt ggctcacgcc tgtaatccca
2341
2401
       cactttgggg aggctgaggc gggcqgatca cttgaggtca ggagttcaag accagcctgg
2461
       ccaacacggt gaaaccccgt ctctactaaa aatacaaaaa ttagctgagc atggtggcRc
2521
       atgcctgtag tcccagctac ttgggaggct gaggcaggag aatcacatga acctgggagg
2581
       tgtagttgca gtgagccaag attgcgccac tgcactccag cctcggcaac agagagagac
2641
       tctgtctcaa aaaaaaaaaa aaaaaaagaa aggatatcct gccattccta tgagagaagt
2701
       cacagagaag tetgaaatac acaaaaaagt etttataatt aagtggtett caetttttt
2761
       ttttttttaa atacacagaa ttttgctctt attgcccagg ctggagtgca atgacacgat
2821
       ctcggctcat cgccacctct gtctcccggg ttcaagtgat tctcctgcct cagcctcctg
2881
       agtagctggg attacaggca tgcgccacca tgcccagcta gttttgtatt tttagtagag
2941
       acggggtttc tccatgttag tcaggctggt ttcgaactcc tgacctcagg ttatctgcct
3001
       gcctcagcct cccaacacat ttttataatt ataattgaaa atagtcttca cagtttcatt
3061
       3121
       tcctttagtt tttaaaattt aaggacttaa ttctcttcca cataaaaaag tggcccaatt
3181
       tcaaggactt catgtctaaa acaccaaaag caatggcaac aaaagccaaa atagacaaat
3241
       gggatctaat taaactaaag agcttctgca cagcaaaaga aactaccatc agagtgaaca
3301
       ggcaacctac agaatgggag aaaatatttg caacctactc atctgacaaa gggctaatat
3361
       ccaqaatcta caatqaactc caacaaattt acaaqaaaaa aacaaacaat cccatcaaaa
3421
       agtgggcgaa ggacatgaac agacacttct caaaagaaga catttatgca gccaaaaaac
3481
       gcatgaaaaa tgctcatcat cactggccat cagagaaatg caagtcaaaa ccacaatgag
3541
       ataccatctc acaccagtta gaatggtgat cattaaaaag tcaggaaaca acaggtgctg
3601
       gggaggatgt ggagaaatag gaacactttt acactgttgg tgggactgta aactagttca
3661
       agcattgtgg aaatcagtgt ggcgattcct cagggatcta gaactagaaa taccatttga
```

FIGURE 4-B

3721	cccagccatc	ccattactgg	gtatataccc	aaaggattat	aaatcatgct	cctataaaga
3781	cacatgcaca	catatgttta	tagcggcact	attcacaata	gcaaaggctt	ggagcctacc
3841	caaatgtcca	tcaatgatag	actggattaa	gaaaatgtgt	cacatataca	ccatqqaata
3901			atgagttcat			
3961			tattacaagg			
4021			tgagaacaca			-
4081			gggatgggag			_
4141			gcagcatacc		_	_
4201	cctgcaggtc	gtgcacatgt	actctaaaac	ttaaactata	ataataataa	aatttgaaaa
4261	aaaaccaatt	tgcatttatg	tagatgacat	gttattgtct	aaaccaaacc	ttttttggta
4321	tttgtttgct	tttacgtcag	gctttgaagt	tgctaagaaa	tttgctctgc	cctccctact
4381	ctcctcgaag	gagatgtgac	ctgttccctg	gattacccta	aggatccacc	accettcagt
4441			Rggaaagcgg			
4501			caccacacgg			
4561			ccctgacaac			
4621			tgctcatctt			
4681			ccacctggag			
4741			gattcaaagc			
4801			agccctccct			
4861			aagtatcttg			
4921			gattcatgta			
4981	cagttaattt	tctcagcaaa	tcatccactg	gtccatatag	cagcagcctt	agataggcaa
5041			ctttgcctcc			
5101			ctgttataga	_	-	
5161			gtcagaggag			
5221			ggaggatcgc			
5281			tcttaaaaaa			
5341			tcaggaggct			
5401		_				
			gacagcacca			
5461			ccaaaaccca			
5521			gctaacagag			
5581			tggtggggtt			
5641			caccgctcct			
5701	gatgtgtcag	aatcccgcct	gtccccacac	taagcacagg	gtctgttgca	aggggaaagc
5761	tcagtgaacc	ttggatgagt	gaatgaaaat	actcgggctg	taggaaatca	gccctcaacg
5821	acatccctga	agcccgtgcc	tccttcatat	gtgcaaccca	ctttqtcccc	cacccactgc
5881	_		attcatccat		_	-
5941			gggccagaca		-	
6001			gggcacggtg			
6061			tgaagttctt			
6121					-	
6181			ccagcagaga			
			ccaggaaggg		-	
6241			gtgctgccat			
6301			tttatctagg			
6361			gtccaatttt			
6421			caggggctga			
6481	agagccggaa	gggcttgggc	aggtcatgga	tttattgtgg	acaaccttgc	atgggSaggg
6541	agttgctgcc	tggcctggct	ctgaggaaca	cgcctcacag	aggaatgatg	tctttggatt
6601	ttctctgtct	taacctgaca	ccagttgacg	gagcacctac	tttggctgaa	acactgggct
6661			agcacaggtg			
6721			gatgcccgaa			
6781			cagggctcac			
6841			aagccagctt			
6901			gtccactggc			
6961						
			tctccttgca			
7021			tacageteet			
7081			ttccttgggg			
7141			cagaggtggc			
7201			aggtcccatg			
7261			agacagctgc			
7321			ggccagccat			
7381	cctgactccc	agcccaqtqc	tctttccaca	ctctgttcca	ctggtcctga	tgtggagcca
7441			gcctatgtgg			
7501			ttgttggcag			
	y-yg			,	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	

FIGURE 4-C

```
gtggtgtggc tagctgcaac ccttggggag gttatcagaa ggcgtgtgtc atagatcctg
7561
7621
       gacagggtga cctctcacag ggtgtcagga tcctggggga aggatgggcc cttaccaagg
7681
       atggtcttcc ttaccccaag gttgcttcct agacagaatg tagggaaggc ccaggcaggg
7741
       cagggaggaa gagcctctct ctcctgagtc tcacctcaca ctaaggaatc acactgagtc
7801
       ataaaatgqt qttaqqqqaa qaqqcctttc tctqaagctq gagaqgaggq tccccaaggc
7861
       aggccagaga gccagttcct aaaggactat aaggggtagg acatttggtg tctccttggt
7921
       catccgtaat cctgctgaac aatgacgctt tccctcattc caccatcttg gtgtgggaag
7981
       ggatacttat gtttttcaag atgctgtcag ttttgtgtgc accttgctgt ccctgcagct
8041
       gtctctccag cacctcatgc ctggagtcac tgatgttccc acttccaggc ctgagcccat
8101
       ccgggagcct gagccaatac tgaaaacagc cccaatccca ttccatgggg cttggagtca
8161
       tcttcctgct ggtagcacca ggctgggctt cctgctttgc tgtgttggta tatccatagg
8221
       actggggtct cgccttggtc tttcttccta gttcacttgg ttatatttcc ttgaaccctt
8281
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FIGURE 4-D

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FIGURE 4-E

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FIGURE 4-F

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FIGURE 4-G

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       cgacgcaagg gacacacact cctccagtgg gtttctggct ctgtccatgt gggagtggca
26581
       cactatgcag caagetgcca aaggacgtgt cctcgccgct tgggatgaga tcactgtcct
26641
       tgctgtttga tggggcccac tcttggctgc cctccaagga gctgtaggtg aggttctcct
26701
       tagaggtacc cagcctgtgc actttggctg ccctctcacc tgaggaccga gggcatcacc
```

FIGURE 4-H

```
26761
       attgtgctgc atgcctgtgg cccatctgaa gcacttccac ggggaagctc tggcctaggg
26821
       aaggtacctg tgcctgtccc taaggctttc tcatgaggct agagtagaaa gggggaggat
26881
       ctgacataaa ggaagcaaat aagcacccat ttcttggtcc cagggaattg tgggaggaag
26941
       aaggagggag gacaggagat ggtggagagt ggagggcagt ggcgggggca gtgcaaggag
27001
       aaatggagcg ggatgggaag agaagttgag agtggtcagc cagatgggtc ttaaattccc
27061
       tttctgggct ttggtctaga gcaagtgttg gcgaactatt ctgtaaaggg ctagatagta
27121
       aatgtctgag gttcgtagga tcatatggtg tctgtcacaa ctactcgact ctgccattgc
27181
       agtggaaaag cagccaagga caatgggtaa atgaataaat gtggtcatgt tccaagaaaa
27241
       cttaatttat gggtggcaaa attggaattc atgtaatttt catgtgtcac aaaatattct
27301
       tctttagatt tttttctcaa ccattaaaaa tgtaaagaca atttttttt ttttttgaga
27361
       cagagttttg ctctgttgcc caggctggag cacagtgaca tgatttcagc tcactgcaac
27421
       ctctgcctcc caggttcaag caattctcct gcctcagcct cctgagtagt tgggattaca
27481
       ggcacacacc accacactg gctaattttt gtatttttag tagagacggg gtttttaggc
27541
       tgggagccac tgcgcccggc ctaaaaaatg tagacaattc ttagctcatc ttcctcataa
27601
       agtgggtggt gggcctaatt cggctgttgg ggcatcgctt gccaactcat gtatttagtg
27661
       tggggggtcc tgagggtgga ggacttaggg aaaggtgtgg ctcttggaat tctgagtgtc
27721
       agcatagetg etecetteee teacteette tgeeettete catteaceag geatettate
27781
       tgtgtaaccc acagattgta attatgggtt ctcaggcctg caccccaacc caggggctgt
27841
       gccatgctgt gtgtgcttca tagctgcccc tcctggacct agtgcagggc tgggcccaga
27901
       gtgggccttg ataacatttg ttgtctggaa ttaaatcagc agctcactag tggaatctgc
27961
       ccaggcctgg ctagaaactg ggagctgtag ccagtccctc ctgccctgtc ctcaggggcc
28021
       ctcagccacc gaggatgcct gcctgttgct acgctggaga acattttgtc atgtttacta
28081
       acaaggaatc cgaggggtgg agtgggatgg ggaccaagga gggtgttctg taacaccaca
28141
       gggcagagag ggatggagat ggactcaggg acaaggtcag gttacagaaa tggactttgg
28201
       caggagcatt gacatggggc aggggcagag acagcaggaa gcagagggca gggggagtga
28261
       gatgtgggtt tcctgtgggg ccctcccttc ctgggcagga tggagagaag ctagatgcct
28321
       cccatgcctc ccagggagag ctatgcccaa caggcatgtg agagctccct tggcatccct
28381
       ggggactgat cacaqaqcac cggaqactca aactcacaac tctcctgggt tcttataaqa
28441
       aggaatttca actctcagat tttgtctgct gtgggtggca aaggataatt gctttgggaa
28501
       agggcaattt tgggtggaag gaaggggatc tccctgggcc ccagtgtttt gtggattgtg
28561
       tgaggcacct gcaaggtctt ggagaaatgg tgggctggac aacaacagcg aggccctggc
28621
       ctaagctgac actgctgctt gagtctttaa tgcatgtatt cttttcttca caaaggacat
28681
       taaaaggaga ccttttagca tcaggttata tgaaggacaa acaaagttag gacaaatatg
28741
       ggtcatcttc ctggagcatc aatttgacgt gaacattggt ggggaatagc acccccacct
28801
       atgtttatat taaaacaaat atacatatag gagtaaaata ctgaatttgc atagatatat
28861
       atttaaggaa atagggagcc tggagagaaa tttccagttt tagaggcata tttaggcgat
28921
       gctctcagac ccttggaatt cgtgttcttt cttctgccct tagcactgtc actttgtctc
28981
       tattttacga atgagaaaaa caaggtctgg aggggtgcgt cagcaacttg cctatgtgat
29041
       aacacagaac aaggaggtaa gggtaggact ggaacccaca ttgctgggct ctgcattcag
29101
       catgttacct gctacacaat agtgaatcta gagtttcatg ctttagtatt ttgatttcag
29161
       tagtgccatg gaaataacca aatctcacct gtccaagtcg tctttgggca cagcccatg
29221
       tttcaaatca atcaagtcta gtgggaggca atgtggggta gtggagttag gggctgaaag
29281
       tcaagagact ggagtttacc tttaaccagt tctttagata ataaagctcc gtgactttag
29341
       gcaaatggct taacgcctcc gggtttacct tccctatctg taacatgtgg tagctacaca
29401
       agatattgcc taacagcctg gccttctatg atgtgggacc actgcttgcc tttctagaac
29461
       cttcagacct gtagatgggc tcttcttgRa cattctggag tccctggggg aaagggaagt
29521
       ctgMagctca gttggccacc tctgcataac aaataccgag agcactgcaa gtggagcttg
29581
       gacaaggtct ggaaaatcag ccttcttctg gatgcctcca gcctttgcta tcatctgcct
29641
       aggaggttgg aagttactca agcgqctcaa ggaaaaggta ttgtgagcat gcaccaggtc
29701
       atgtgattgg aagggctatc tgctcctggc ctgaggccag cacccaaagc tgtccacatc
29761
       tcccagggac agcagcatct ttcttcttta ctacattctc tctcctctca tcttgattgg
29821
       cttcctctgc ctgtacatgg ctaactttgc taccagccag agtgggagta acccacagcc
29881
       cctaagtccc ctccagagag ggctgtcaac agggctggct gctgagctgg ggaaggtggg
29941
       agggtctcac catcccatat gtagatttca cttaatttcc ctgctttcag gacagtgctt
30001
       cacctttaac ttcctctttg ccaggtatcg cttatccttg agtgtctctg gatcagtttc
30061
       tctggagatg aaattatcta tggcctacca ggatagtttc caggcagtgc agagttggga
30121
       ggaggactgg ggtagaaaca ctttcttata aagacttctg ccctatccac ctgttttcag
30181
       ccccattttt caccctggct ccaatgcatg aggctttgtg gggtcggtgg tcggaatttg
30241
       cttgcttctt gctaacattt ctctttgcat tcactttggt ttcagctctc tctgctttgc
30301
       taagctggtt atcatccagc ttcttacctc ttccaataat tattgacttc tcttgtcctc
30361
       tgtcatgttc atgccattct ctttgctctt gtgggctcac tctttttctt ttttaacaaa
30421
       atttcattac ttttacttta gtgggtgtca ggatggaatg gacataccac atgtgtttac
30481
       acceccatgt ttcattagaa atcetagtca ctgttcaaca cattetetca getecateag
30541
       tcctttgaag ctgttcttgt caaggacacc accatttcca tgttgccaaa tctcttggtc
```

FIGURE 4-I

```
30601
       actttgctgt ctgtcttcat aatactcagt ctctcagcag cattccacac acttgaccac
30661
       tcttgaaaaa cttgcttctt ttgaccttca tgataacaca tgcttctgat ttgtctgcta
30721
       catccactga gcatgcttca ccctctcttg ctatatcttc ctcttctggg aattcccatg
30781
       gactetteet ttggteetet tettttetet atetataeae ttteeetage tgateteate
30841
       tagtectagg getttaaata etttetatat accaatgaet eteacatatt tatetgeage
30901
       cttgataget teectgaate teaactatet aetteteea gacateteea tttggatgee
30961
       taatagcatc ttaaacttaa ctgggcaaac ctgaactctt gattttcacc gccaaaccag
31021
       ttccttctta gtatttccca tcaaagtcat gctcatacac tgagtggctg aaggccaaaa
31081
       ctcaggatca tgcttcactc tgctcttcct ttctcctttc ccatttacta tgtcagcaag
31141
       ccctgtcggt gcctccatga tatatgatta gtgagtctgc ttctccattg ccactgctga
31201
       ctgactgctc ctgtcaaggc caccatcatg tgttgcctgg gctattccag ttgactcctg
31261
       agtggtttcc tggcttccac tatggccctc caaggatcca ccttccgcat agtagccaaa
31321
       tgattccatt aaacatgtct atcaggttat gccactcctt tgtttaaaat tttccagtga
       tttcctgttg ccttaaaata aatttcacac ttcttaccaa ggcctctgct cctctgcaaa
31381
31441
       ctctttctct tctttttaga gatgaggtct tactattgcc cagggtgggg tgcagcagct
31501
       tcatcatgtt tcactgcagc ctcaaactcc caggccctgt ctcagcctcc caagtaacta
31561
       agtcaacagg cataccccac ctcacctggc taatttttt taaaaaagag atttggtctt
31621
       actatgttgc ccaggctggt cttgaactcc tggcctccca aagtgctggg attatgggtg
       tgagccactg tgcccagcct aaactccttt ttttttttt tttacacagg cttaatccac
31681
31741
       tatggccttt ctggtcatct cccattccta ccccaggacc tttatacttg ttcttccttc
31801
       tgcccaagaa ggaagactgc agccacaatc ttgatgctta ctgcagccac aactcctcat
31861
       cattcaggtq caagctcata cattctcaga gaggctctct tagtctattt tatctaaagt
31921
       aggaaccct tctcccaaat catttgctag aacagtggtc ccccaccttt tcggcaccag
31981
       ggactggttt catggaagac aatttttcca ggaatggttt tgggatgaaa ctgttccacc
32041
       tcagatcatc agggattaga ttctcataag gagcgtacaa cctagattct tccatgtgca
32101
       gttcacaata gggttcgcgc tcctatgagt atctaatgcc accactgatc tgacaggagg
32161
       tggagctctg gtgctaatgt gagcgatgag gagagctgt aaatacagag gaagcttcac
32221
       ttgcttgctg gcccacaget cacctcctgc tgtgccaccc agttcctaac aggccatgga
32281
       caggtactgg ttcatggccc tggggacccg tgctctagaa catcactttg ttttgcttgt
32341
       cttaaaaaat tcatagtagg tatcattatc caaaattatt ttatttgttt acttgcatac
32401
       cagctaactc tccccattaa aaaatggact ctatgagaaa gggtccttgt ctgcattgct
32461
       cattittcat atctttatct accacagtgc ttggaataca ataggtgctc aatacataca
32521
       tqtacaataa atqaatqaat qaccaqttaa qctaaaqqqa ctaqqaqtaq aqacaqtccc
32581
       tggagagggg gatgtgggta gaacaggcat tccacagcgt gtctcttgaa cttttgcttc
32641
       attctaggcc agagtatgac acaaagtctc ctaattttat aaagggtcag taagcacaaa
32701
       ttqaaqqqaa aqqtqaqqqc aqqqqcaqtq qatqtqqqqa qcqtqqqaca qctcaqqaaa
32761
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32821
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32881
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32941
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33061
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33121
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33181
       atttatcacc gtttcctttt ctttgtgttt ctctgtggtt attgaagttt ttggtttggg
33241
       gaaaaacaac aaaaacaaaa atagcaacat atttatgaac aaagaagaga gctaaaactt
33301
       aacatctgqa aqaqaqqaaa qaqqqqaqta aqqtqcctqa aaataatttc ctttaqqaqt
33361
       gactggaggc ttcaggggga tcacagcact cctgtggaat ttttacagaa ctaaggaagg
33421
       ctggagtcag ccaaactttt gaaacctcag catcctaaac ctcaactctt gctgcctga
33481
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33541
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33601
       ggcacaagaa aaacgctcag tcatcttgca gagacttggc atctctcagc aacacgttct
33661
       ctctttctct cttttcttt ttcctttgag atggggtctc gttctgccgc caggctggag
33721
       tgcagtggtg tgatctcggc tcacggcaac ctctgcctcc tgggttcaag cgattctcct
33781
       gcctcagcct ccggagtagc tgggactaca ggcgcacacc accatgccta gctaagtttt
33841
       gtatttttgg tagagacggg gtttcaccat gttggccagg atggcctcga tctcttgacc
33901
       ttgtaatcca cccgcctcgg cctcccaaag tgttgggatt acaggcgtga gccaccacgc
33961
       ccggccgaca cattettatt aacttgatgg cacagttggc tggcaggttc ccaggtcatg
34021
       ttctcagtga ttggagttct tgctgtttct tggactcctt catgtctcac ccagtcctaa
34081
       qtcccttcct tqcttcttaa ttaatttatq tccttqtqta atatqtqqca cacccacata
34141
       gccatgaggc atgttcaggc tgtgtttttt aatgttctgg cttgttctac atttgccaag
34201
       tgggcaagga cagcagttac ctgattggct ccatttgggc agcagaacct aaacagtgac
34261
       tacctgttgg aatccacctg gcctaggtat cttttgtttg tttgtttaaa taacaacaag
       catttcttat ggtgttttgt tttctcctga actctgtaaa gacaatggca acacagaggt
34321
34381
       cagtctagaa tgactatact ggcactagga gatgagaact atacaagtgg aattaagcaa
```

FIGURE 4-J

34441	atgtatagac	acaaaatcat	cacaaaaagg	gtgaagtgct	gttcagttat	tgatgccagt
34501	ccctcttctc	taggggactg	tgacagctgt	agccagatgt	gtccaggaga	ttatctctqt
34561		tcagcatcct				
34621		tgtctgcatg				
34681	agtcttggcc	aggtgcagtg	gctcacgcct	gtaatcccag	cacttcggag	gccaaggact
34741	cctgaggtca	agagttcgag	agaagcctgg	ccaacatggt	gaaacctcat	ctctactaaa
34801		tagccaagtg			-	
34861				_		
		cgggaggcag				
34921	gcaagacaga	gggagactct	gtctcaaaaa	aaaaatgggt	cttaatatca	atagtgggga
34981	attctcagtc	tctccatcag	caggtgctga	aagctcacaa	taaaggagaa	aattttcaat
35041	agctgttttt	ttttttaaga	gatggggtct	tgttctgtta	cccaggccag	atgcagtagt
35101	gtggtgatca	tggctcactg	cagetteaac	ctccctaaat	caagtgatct	tecegeatea
35161		tagctaggac	-			
	-					
35221	_	cttgctatgt				-
35281	gccatcttag	cctcctgagt	tgctgggatt	ataggcgtga	gccactgctc	ccggcccagt
35341	agtcatgttt	ttgaggaagt	ttattttat	ccagtatgtt	tggctctgca	tgggttcctt
35401	aagatactag	ggactgtctt	tgggtcacaa	agccagcatg	acactaacat	gggtctcaat
35461		tgatagcttt				
35521	_	taatcctgcc		_	-	
		_	-	-		_
35581		cctgacattt				
35641	ataaaaactc	tctttccagc	cttgtttcta	aagctcttcc	ttggcccaga	tccccctagg
35701	tggcttctac	cagccttgtc	cagttgagga	gcatggccta	gacacctgtg	agggtctctg
35761	cctqcctcca	gctgtgccca	ggattggctt	ctcctcagct	gtgcctcatg	ctgggccaca
35821	_	aggctggtca		-		
35881		gattccccat				
35941		aactatttct				
36001	agaaataaat	gtaatagtta	ctacatttgt	tcaatgattt	acagtcaaca	gagcacttta
36061	gtatattcac	atgtattatc	tcatttccat	actttcttt	tttaagcaaa	cataaaataa
36121	ttttatcaga	tacaacaaaa	attaaaacat	aacaaaaqta	tcacatataa	tottatattc
36181	_	ataacataga		_		
36241		_		_		_
	_	tttattatga			-	
36301		ataatgctac	-		_	_
36361	gcttttaact	gagttaagat	agaaaaccct	agttcacaca	aactagttgt	tgtgaatggt
36421	agtaatagta	ggacactctt	tctacttaac	aaaqqaaaqt	cttcctttac	cttaattcaa
36481	-	aatttaaggt				
36541		tctcttcttc		_		
36601		caaactgatt				
36661	agtggcacga	tctcggctca	ctgcaacctc	tgcctcctag	gttcaagtga	ttcacctgcc
36721	tcagccttcc	aagtagctgg	gactagaggc	gcacaccact	acacccagct	aatttttgta
36781	tttttagtag	agacggggtt	tcaccatgtt	ggccaggatg	gtcttgatct	cctgagctcg
36841		gcctcagcct	-			
36901	-	gatcttttac				
		-				
36961		taaaaatttg			-	
37021		tgtttccatt				
37081	gtagtagcta	ggacagttac	ttgtaagtct	tgcttgccat	aacaataatg	tctttcgaaa
37141	tccctggata	tgtctgacat	gttggaatac	atcactgttt	ttcccccgtg	gttttaaatt
37201	cagtttatta	agaataccaa	aaataccagt	taaatatgcc	aatttttta	tccaaatgtc
37261	_	atatttgcca	_	_		_
37321		_		-	-	_
		taaaccctgc	_		_	
37381		tgggtatggt				
37441	attcagtgag	tttcctttaa	taaaactgac	aacttcactg	catttttcag	tacttccatg
37501	agatactgtg	gaatttctct	ggatgctaaa	ccttcatgat	gtataaaaca	atgattccac
37561	acagtacaac	tattagtcac	ttctagtaat	tttttaatga	ctctactata	ttttccagtt
37621		tgacgtcacc				
37681		gcctttctaa				
37741		acaaaagacc				-
37801	gaatgtcttg	tgcagctgcc	aatatcatca	gtgctttcat	cacactgctt	tgcaaaatct
37861	ataccagact	gttatggagt	aataagcatt	gtttctaaac	gttctgcaat	actacaaatc
37921	-	attgtgttat	_	-	-	
37981		tgcattgtat				
38041		tttttgccac				
38101		aacaactaag		-	-	_
38161		gaggcttatc				
38221	ttaggtttta	agctttcatt	tgcaagaata	ttattacaaa	taacacactq	aggtctgtca
			-		_	_

FIGURE 4-K

```
38281
       ttttcagtgg gcttttcaca tttgataaag ccatatttta agtaatcata atagcgtctt
38341
       gcacttaagt ttttcttttt gaaatgaggc tcaaatgaag tttcagtttg cagattagag
38401
       tctgtatttt tctcagtatt gtcactattc acacttccaa attcaacaga tgaacttcag
38461
       catgottctq tatatttcat ttcatgattc ctctttcttt taataaagaa attatgcatt
38521
       taatagcaat tttttccagt ttgattaaaa tggtataatt ggtactaact caaaaaagaa
38581
       gaaaaaaata cacatatata tagtttaaat gacatctttt caaaaactac actcaaagtt
38641
       tgcaattgaa tctcagttga ctatctccag tttcaagtca ttgtaatata aaacttgact
38701
       gcacaacatt cactttgcta atatgaaaac caagcgagac acccaagagc aaatgactga
38761
       aaaccacttc ttagccaaca tacattgtat tcatcatatc ccctccatca aatacctttc
38821
       tcacatattg aaattgacct cactattcct tgcaacatgc acaattcagg caaaggatcc
38881
       atgcaaagca ctttgatatt ttacactttt taagttatac tttaagttct gggatacatg
38941
       tgcaaaatgt gcaggtttgt tacatacgta tacacatgcc atgttgattt gctgcaccca
39001
       tcaacccgtc atctacatta gatatttctc ctaatgctat ccctcccca tcccccacc
39061
       ccaacaggcc ccagtgtgtg atgttctcct ccctgtgtcc atgtgttctc attgttcaac
39121
       tcccacttat gagtgagaat atgtggtgtt tggttttctg ctcctgtgtt agtttgctga
39181
       qaatqatggt ttccagcttc atccatqttc ctgcaaagga cataaactca tcctttttta
39241
       tggctgcata gtattccatg gtgtatatgt gccacatttt ctttatccag cctatcattg
39301
       atgggcattt gggttggttc caagtctttg ctattgtgaa cagtgctgca ataaacatac
39361
       gtgtgcatgt gtctttacag tagaatgatt tataatcctt tgggtatata cccagtaatg
39421
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39481
       tccacaatgg ttgaactaat ttacactccc actaacagtg taaaagcatt cctatttctc
39541
       cacatcctct ccaacatctg ttgtttcctg actttttaat gatcaccatt ctaactggtg
39601
       tgagatggta tctcattgtg gttttgattt gcatttctct aatgaccagt gatgatgagc
39661
       attttttcat atgtttattg gccacataaa tgttttctat tgagacgtgt cctattcata
39721
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       tagtttcttt tgctgtgcag aagctcttta gtttaattag atcccatttg tcaattttga
39781
39841
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39901
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       ctttaatcca tcttgagtta atttttgtat taggtgtaag gaaggggtcc attttcagtt
39961
40021
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40081
40141
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40201
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40261
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40381
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40441
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40501
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40561
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40621
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40681
       aaagtttctt atcagctaag gagattttgc gctgagatga tggggttttc taaatgtaca
40741
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40801
       atttetttet ettgeetgat tgeeetggee agaactteea atactatgtt gagtaggagt
40861
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40921
       ccattcagta tgatattgcc tgtgggtttg tcataaatag ctcttattat tttgagatac
40981
       gttccatcaa tacctagttt attgagagtt tttagcatga aggggtgctg aattatatca
41041
       aaggcctttt ctgcatctat tcagataatc atgtgttttt tgtcattggt tctgcttatg
41101
       tgatggatta catttattga tttgcatatg ttgaaccagc cttgcatccc agctatggag
41161
       ccaacttgat cgtggtggat aagcttttgg atgtgctgct agatttggtt tgctggtatt
41221
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41281
       gttgtgcctc tgccaggttt tggtatcagg atgatgctgg cctcataaaa tgagttaggg
41341
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41401
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41461
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41521
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41581
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41641
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41701
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41761
       tggctcctag attcattgat ttttttgaag ggttttttgt gtctctatct cattgctgct
41821
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41881
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41941
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42001
       tatgttgtgt gtctgttctc attggtttca aagaacttat ttatttctgc cttaattttg
42061
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```

FIGURE 4-L

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42121
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42241
       attttagaat aagtgtgatg tggtactgag aagaatgtat attctattga tttggggtgg
42301
       agagttctgt agatgtctat taggtctgct tggtccagag ctgagtttga gtcctgaata
42361
       tctttgttaa ttttctgtct cgttgatctg ccagtggggt gttaaagtct cccctatta
42421
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42481
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42541
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       agagactagg attgcaaccc ctgctttttt tttttttctt tccatttgct tggtaaatat
42601
42661
       tcctccatcc ctttattttg aacctatgta tgtctttgca agtgagatga gtctcctgaa
42721
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42781
       tagcctgttt acatttaagg ttagtattgt tatgtgtgaa tttgattctg ttattatgat
42841
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42901
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42961
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43021
43081
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43141
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43201
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43261
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       aatttgaatg ttgacctgtc ttgctagggt ggggacgttc tcctggatga tatcctgaag
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43381
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43441
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43501
       tttttctctc atcttatctt cacactttat ttcattaagt tggtcttcaa tctctgatat
43561
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43681
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43861
       aggeattetg gtttttggaa ttttcageet ttttgcaetg attttteete atetttgtgg
43921
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43981
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44401
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44521
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44581
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44641
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44701
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44761
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44941
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45001
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45481
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45541
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45601
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45661
       ccaggaccac aagcctcaca tctctccagt ggagctgcca ttggccttgc ccccgattcc
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45781
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45841
       ttttaaaaat agaaaaaat gaatataaaa tatataacaa cgaacccaaa ctggattata
45901
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FIGURE 4-M

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45961
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46021
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46081
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46141
46201
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46261
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46321
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46381
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46441
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46501
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46561
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46621
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46681
       cttggaagca agggcagaac catttctaag tgaagaaaca caagcagacc aaataacatg
46741
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46801
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       gaccatcagg gtttagtaga tactgcacag actcatttaa ttgtcacaaa acctgtgagg
46861
46921
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46981
       aactaagcac tttgctaaaa accctacata tatctaataa aaattccatg aggtgctgag
47041
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47161
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47581
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47641
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47821
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47881
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47941
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       tctttagatt cacacaatca actcaaggga ggagctagga cttgaactca gcaagtctga
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48061
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48361
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48421
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48481
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48541
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48601
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48661
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48721
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48781
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48841
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48901
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48961
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49021
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49081
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       teagecacte etetteacte etttetatgg etceagaagt gaagagetet gaaatgeeta
49261
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49561
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49621
       ctgtcaaatt ctagatctta tttctttcta ttttttgtac ccactgatga atctctcttc
49681
       cccctcaccc caccaactac ccttccagcc ctcagtaacc atcattctgc tctctatctc
49741
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FIGURE 4-N

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49921
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49981
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50041
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50161
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       tgcagaatgg acaatacatg atccaactat atgctgcata taagagacac atKtttgatt
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50401
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50461
       ccaaaagaaa gctggagtgg ctatactaat atcagacaaa atagacttta agacaaaaat
50521
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50581
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50641
       tgacagaatt gatacaataa tggttgaaga cttcaataca ccactttcaa tcatggatag
50701 .
       agcaactaga cagaaaatca atatgggaat agagactaaa taccaatata aacatactag
50761
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50821
       acatggagaa ttctccagtt tagaccatat gtcaggtcat taaacaagtt tcagtaaatt
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       tcaaagttct gaaataatat aaagtatgtt tcctaaccac acagaatgag attagaaatc
50941
       aataacagag ggaaattcac aaatatatgg aaattaaaga acatttctga ataatcaatg
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51301
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51361
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52501
       taagaaaata attccattta cagtagcatc aaaaagaata atatatgtag agacaaactt
52561
       aacaaaagaa ttgcaatatt tgcacactaa aaaaagatga aacactgcta aaggaaatta
52621
       aaqaaqacct aaataaatqa aqacatcqca tattcacaaa ttqqaaqact caatattqta
52681
       agatggcagt actccccaaa ctgatgtatg cttttgaata atatacagta tgttccctaa
52741
       ccacaacgga atgaaattag aaaatcccag ccaggttttt gcagaaattg acaagctgat
52801
       aataaaattc atgtggaaat acaagggatc cagaatagcc aaaataatct tgagaaagaa
52861
       gaacaaagtt ggggcattca cattttcagg ttcaaaactt actacaaagt gtaataataa
52921
       agatagtgtg gtactagcat aaggatagat atataaatca atcaacagag agtccagaaa
52981
       ttagcccacg tatttatagc caattgattt tcaataaagg tgccaagacc attcaataag
53041
       gaatgaatag tctcttcaac aaatggagct gagaaaactg gatatccatg caaaagaatg
53101
       aagttggact actactcaca ctgtacacaa aaattaattc aaaattatca aagatctaaa
53161
       cttaagagct aaaactataa tactcttaga agaaaacata ggtatacatg gccttggatt
53221
       atgcaatgat ttcttacata tgataccaaa agcacaagca acaaaagaaa aaacagtctt
53281
       catcaaaatt aaaggacact attaagtgtt tcaaaggaca ctataaagag agtgaaaaga
53341
       caactcagaa cttgagaaaa tatttgcaag tcatgtgtat ctgataaaca tctagtatcc
53401
       agaatatata aagaactatt ataactcaat aacaaaaaga aataacctaa tttttaaatg
53461
       cacaaaggat ttgatagatg ttttttccaa ataagataca caaatggaca agaagcacat
53521
       gaaaagatgc tcaaaatcat tagtcattag ggaaatgcaa attaaaccta aaatgggata
       ccacttccta ctcactaaca tgactgtgat taaatagaga caatgacaag cgctggtgag
53581
```

FIGURE 4-0

```
53641
       gatgtggaga aattggaacc cttatacact gctggtggga agtcatatgg tgttactagt
53701
       ttggaaaata gtttgaaagt tcgtcaaaat gttaaacata caattcctgt atgacccatc
53761
       aattccactc ttaggtacct atctaagagc tataaaacac acacattccc ataaaaatct
53821
       gtatataatt tttcgtggca caattattta taatagctca aaagtggaaa caaccctcat
53881
       qtccatccac cgatgaacgg attaaaaaaa atagtgtgtc tatacaatgg aatatgattc
53941
       atccatataa agaaataaag tactgattct cattacaaca tggctgaacc tcgaaaacat
54001
       taactgaaag aaattggaca caaaaggccg tgtattatat tatttcattt atctgaaatg
54061
       tctagaatat gcaaatccat atccatatct acagatagta gattaatggt ttctaggaga
54121
       gaggagaagt ggtaaatgga gagtgactgt taatggttcc aaggtttctt ttggggctgg
54181
       tgataatatt ctgaaattag atagtggtga tggttgcaca actttgtaag tatagtaaat
54241
       accactgagt tgtacacttt aaaaacagtg aatatcatgg tatgcgaatt aggtctaaat
54301
       tttaaaaaaat ttaaaaaaga gttgcctgtt tgccagtaga aattaactaa aatagagaaa
54361
       attcagaata ctgaggcctg tagaattgaa aaaattgact gtttctagtt tccggatagt
54421
       aagagatgga aatttaaaag gcgttgcata ataaggccca agaaaatgtc tcagttgatt
54481
       aaaatcccag ctcatgccta taatcccaga actttcagag gctgaagtgg gaggattgtt
54541
       tgagtccagg agttcaagac cagcctgggc aatatagtga aaccccgtcc ctacaaaaaa
54601
       attaaaaaac tagctgggca aagtggtgca cacctgtagt ctcagctagt tgggaggctt
54661
       aggtgggagg attgtttgag cccgggaagt tgaagttaca gcaaaccatg atcgtgccac
54721
       tgcactccac cctggatgac agagtgagat cctgtctcag aaaaaaagga aaaaaaaaa
54781
       aaaggaaaat atctgattaa aggtgcattc ctttgttcta gctagcttca aggtagacac
54841
       tatcatattg aaagacagag ggagcagggg gacaagaagg cgaaaggtaa agcaagttgg
54901
       aaaactgtat cttacaaaag caaccttgag tgtggatatt ggcaaataga tcagatgctt
54961
       accaaatttt tgaggaaaca gtattgtcaa agaaaccaca aggctgtata aaaagcgtta
55021
       gtccattagc taagccttaa agcaacctct ggtaggaagt tgcacatccc ctaaagagag
       tattctccct aactccctct ttacatgtgg tcaagcagta tcagggtcca ggaggaagcc
55081
55141
       cctcagagtg tggtgccaag gatcacaaag aatagtggag gagggagttc ctgctctagg
       ctaggcagcc tttataacat ctgcccactg gtatttcagc actgtcacag gcagtgacta
55201
55261
       ctgtgggtct cttagtcttc ccctttctga atgggagtta tcctgttcct gttattgtag
55321
       ttatcctatt cttgttctat tatcgcatat ttgtatgctg tcatggtgtg ttagtctgtt
55381
       cttatgctgc taataaagac gtaccagaga ctgggtaatt tacaagaaaa gaggtttaat
55441
       gaacttacag ttccacatgg ctggggaggc cttacaatca tggtggaaga cagaggaaaa
       gcaaagggac atcttacatg tcagcaggca agagagcttg tgcaggggaa ttcctcttta
55501
55561
       taaaaccatc agatcttgtg agacttattc actattatga gaacagcctg agaaaatacc
55621
       caaccccatg attcaattag ctctcaccaa gcccctccca tgacatgtgg gaattatggg
55681
       agctacaatt ccagatgaga tttggctggg gacacagcca acccatatca catggatatg
55741
       aggcagacaY cttgactttt cagttcacag gtgtaagaga agccatgtct tttcctgata
55801
       gagaggacta agaaatgcaa agctataata gattggactt tggattgtct ttcgtgagga
       gtggtggaag atgctctacc ttcaggacga agggaacaaa gggatattta atggccagaa
55861
55921
       gagtgaactg cagtggagac tgttgttgct caccaagttg gctcacatgt gcttctctaa
55981
       atttcccagc ctaaggtgtt gtccagtaat tttcctttct tgtaatatct ttctgagctt
56041
       ttggaatcaa tgttttgtgg gccttataaa atgagtttga atgtttccct tcttctattt
56101
       tctggacaca cctctgcagg ccagtattaa ttatctctta aatttttgtg aagcaatctg
56161
       ggcatatagt tttctttttg gaaacagttt taatttcaga tttgatttct ttgatagata
56221
       tagggctatt ggtattttaa aatttcttct tgtggcaatt ttggcaaatt gtattttaag
56281
       aaacatgttt cacttagatt ttctaattta ctggcataaa tattggtgta tagaatgcca
56341
       atctattggc ataaagtttt ttctaacatc ctctcattat ctttttaatg tctgtaaggc
56401
       aggtagtgat attetettt teaaggetgg tttttgtatt tatgttttt tetetetett
56461
       gctctctctt ttcttgaatt gtcttgctag gagtttatta agtgtattaa tctattcaaa
56521
       gaataaactt ttgactttgt tgattttctc tattaaatgt ctgttttcta ttccattgat
56581
       cctgctctgt attcctctct tctatttttt gagggggtta attttctgtt ttttgttttt
56641
       gtttttgttt tagctttttt cctattattt aaacatatat tttaaagaaa gatttttctt
56701
       acatagagac agggtctcac tatgttgcct aggcttgtct caaactcctt ggcttaagca
56761
       atcctccagg tttggcctcc caaagtgccg ggattacaag tgtgagccac catgcctggc
       catttttcta gttttttgag ttgagaactt agatcattgg ttggtttttg tttttgtttt
56821
56881
       ttttgagatg gagttttgct ctgttgctca ggctggagtg cactggtgcg atctcggctc
56941
       actgcaacct ccacctcctg ggttcaagca gttctcctgc ctcagcctcc cgagtagctg
57001
       ggattacagg cacccactac cactcccagc taatttttgt atttttagta gagacgggat
57061
       ttcaccattt cagccaggct ggtctcaaac tccctatggc agatcatctg cccgactcag
57121
       cctcccaaag tgctgggatt acgggcgtga gccaccgtgc ccagccagat cattggtttt
57181
       taaccttcct tattttttaa tatatggact taatggtata tgtttccttc tagattctgc
57241
       tttagcagtg ttactgacca cattaccact cttctctcca catatccagc agtgaaagac
57301
       ttctgatgct ggaaatgcag aatgaatctg catgaatctc tgagtcactg tctgggatgc
57361
       aagagagctg cctcacatgc attggctagt gatatatgca agaaacatac ctttgatgtg
57421
```

FIGURE 4-P

57481	caagagggct	tgttttacaa	tagctcttat	atctgtccat	attgcagttt	gcaaagactt
57541	cccattgatt	cccccaagtg	tttttcctga	agatgtgggg	ttaacqqaqq	ggtattacag
57601			aattttaatt			
				•		
57661	atttttcatt	gcctgtcttt	cagattcggc	cctgacctat	tgtcaagttt	taaggtcccc
57721	ttttctattt	aaacctcttt	cctcactttc	catattcttg	cttcttccca	tccatcctat
57781	ticcaaagcaa	cccgaagete	tccagctttg	ctattatage	ttttctttac	cttggatcaa
57841	-					
	_		ctcttttcta		_	
57901	gcagaaatgg	agcagtggga	agcctgttgg	agaaacagga	caggccctcc	tgagctgaaa
57961	aggttttccc	ccagaatcta	gagtggtatt	tttctttatt	gtactgcaac	ttacttactt
58021		-	attttatttc			
		-		-		
58081			ctaacttaat	-	-	-
58141	tataatattg	ggaaacatct	gttttatatt	cacattttt	cctatttaaa	aacataattt
58201	tcagtcctga	aggatatgag	aagaacatgc	aactccccaa	aatcctactc	ccqqqcaqaa
58261	aatgtttaac	aaattaggct	gcatgatttc	agetgetgae	agctagacag	aaagaagaat
58321	-		agagactgct			
58381	cagaggcatg	gtcttagtgg	gacagcctag	tgttctgagc	accgggactg	tcagattcac
58441	atgtatttgg	atggtccaga	gcaattgtgg	tggcagaagt	ctgtttgcag	aaggatctag
58501	aaacctcttg	ggaaggggtc	tagcctgtga	atottottca	ctctggccca	gcctcagagg
58561	_		gaataaaaac			
			-		-	
58621			gttctcagta			
58681	gtgggaggga	tctctcccct	tcatagtaaa	aaccctggga	cacaactgct	gagccttaag
58741	gccataagcc	ataaggcctg	attgagtaca	agtcaccagc	tacaaagaaa	ggcaaggaag
58801			acccttagca	-	-	
58861			_	-	-	
			ggcttggcca			
58921	ccttgaggtc	aggtcagagg	caggaagatc	ctgtgctgaa	gagtaaaact	tggagagggg
58981	ccttgtgaga	tcttgcgagg	gatctggaga	aataggatag	ggcagtgatt	aaaaaggcct
59041	atcaggacca	ggctaacagg	agttagccag	ggaacatgag	acaaataaat	aacttggaat
59101			ctgcataatc			
			-			
59161			ctgatattat			-
59221	gtttccctac	acacttgcca	cacctttgaa	aatagtcctt	ctatgaaatg	acctgttaaa
59281	tcaatttqcc	taatatgaat	gcaccatctg	cctqctqctq	ggactactga	tgcagaagcc
59341	_	-	gggaccctct			
59401			gatttaaatg		-	
			-			_
59461		-	gacatacttc			
59521	tggcagccta	actcatcagg	atgagtagag	attaaagaga	tctgatttga	ggcaggaatg
59581	agataataat	attaggggac	aagaaggcta	cagtcagacc	tcagcccagg	gccatgatca
59641			tgctctatgg			
59701						
			tgaagactcc			
59761	tacctggcac	tagagtgtct	gcacagggag	tggcatgagt	gggcacctct	acaactttga
59821	tggaaggaag	caaggtgctt	acagagtagc	tgtggggaga	agaactttct	tcccctctga
59881	ccttcagaat	atgctcacgt	ggaaggaatg	cgtgagacac	acagctggaa	atgttgagaa
59941	aacacaagag	cctagaccta	aggaatctta	aaataggttt	gttatatatt	taataaatgo
60001					_	_
			gaaaagttaa	_	=	
60061			gccatctggt			
60121	cacattgaaa	accaagcttt	aatgcgtaaa	cttaacagaa	tgtccaatca	caagtatgtg
60181	atagaagtaa	agtaggggaa	gaaatgactc	aggtattatt	cccctcaatt	ctcccaggac
60241			atgtctcctc			
60301			cttgtatttt			
60361			cacccactag			
60421	ctctgctcac	cactgttgct	ctaggaccca	gtggctgaca	cctagatgct	caatagatct
60481	ttcatggatg	acaacatgaa	ggacttttaa	agcatgtcaa	gttgagacta	gcttcccaaa
60541			tatattaata			
60601		-	ctgacacatt			
60661	ttcatgagga	aggggggtga	aaactttaat	cagatcaaat	cttaccttta	gagcaggaga
60721	gacatacttt	ctctttgatc	tccctgaaac	tgccaaaagg	tttttgccga	actcataggt
60781	_	-	gctacaacta			
60841			gaggatatct	-		
60901	-		aggcctggta	_	_	
60961	gttatatttg	gaaaggaagg	ctatgccctg	gtgaaattat	acgtgagaca	caaaaaatac
61021			gttagagagc			
61081			ctctggcctg			
61141						
			catgagtgta			
61201			gtctcgctct			
61261	gcgcaatctc	ggctcactgc	aagctccgct	tcccgggttc	acgccattct	cctgcctcag

FIGURE 4-Q

```
61321
       cctcccgagt agctgggact acaggcgccc gccaccgcgc ccggctaatt ttttttgtat
61381
       tttttttagt agagacgggg tttcaccttg ttagccagga tggtctcgat ctcctgacct
61441
       catgatccac ccgcctcggc ctcccaaagt gctgggatta caggcgtgag ccaccgcgcc
61501
       cggccgcctc cgcctcttcc ttaacaaagg aagagctaat ttcccacgcc cccctccca
61561
       ccacaaagta tgagggccac actggaggga tggtagagtg atggctggaa gaagtgtggg
61621
       gcttttgtgg aacagcctgt aatgtccaac tctggactat ttagggaaag gaaatgagac
61681
       agaaattttt ctcttgttta ggccactatt attgtgggtc tctgttacca tcagccgaac
61741
       ttaattcccg tgaatatatt tgtgaacact aaattattgg tgcatcataa gctttcatca
61801
       tgttcattta gatagggatc tgaactttgc cataggtgac tggtagtgat ctggatccag
61861
       tgggaattgt ctggaatgtg atcaagacat gaaatgtgca gatgggccag tgacgagggc
61921
       ttaccttttg ggagcagttg acaggtgata gataccgatg acttctagct gatttattcc
61981
       tcttaaagag tcatcctttg gatgaatcgt gagctatgga aacgattgct caccctgagc
62041
       tgtttggggc ttgtgttctt ctcaagattt ctgaggacct ggctcgagct tctgtgtcag
62101
       agtcctcatt ctgactatgg ggcctcagtc cttttttggt gtttatgctc tttctctggc
62161
       tgctgccctc ctttcctctt ctgagccttg ccagtgtgga acatgactgt cttctgtgtt
62221
       cccccagaac acggctaaac cgctttgcct gaagccttgg ggatactgga tggtggatag
62281
       agaccacat gctctgccct gttcatactt aatgttccaa agaaatagta aagttctgca
62341
       ataacagttt ctaaaaaaat tcaatcttta attttgttgt tcttttgata attttttact
62401
       gtggtaaaaa tatatata agttgccatt ttaaccattt tgcatgtgca attcagcagc
62461
       62521
       ctttaaaaaa tgtttaaaaa ttttttaaaa atttttgtta tttttgttt agattcaggg
62581
       ggtacatgtg caggtgtgtt acataggcat attgcgtaat gctgaggttt aggcttctac
62641
       caaattaaat tottaaatag agooctottt cotgacccag agatgttata gooccagtga
62701
       ggtcatagtt cggcttcttt ttaaataaca ggaattcagg aacttgaaaa atccccatgc
62761
       ttttctctqq tataatttta qccacccctt cctccaqatq tccctqqtaq aatqcacaqa
62821
       tctgtggatg tattgagtgt tgatggtact gtcgaaggct gatggtggcc agcccctgga
62881
       gtctgacatt caactgggaa gcaaacaccg tgggacagga aggctacaga ccctcactcc
62941
       agattcagct tttgacccta ttgcccattg aatggttggg tgagcagttc tgaacaaggc
63001
       accaggacga aggtagcttg agactaggaa aactagaagc tacagccagg gaggactcct
63061
       gggaaagagt atggcctaag gggaatgtgt gtgtggtggg.caggtgggca gcaatggggg
63121
       agactgcatc tctgggagac agaggtcata gcctcacctg agttccactc tactcacctc
63181
       cctctccctg cttccaaaaa ttttagacgg ctatggtcag cctagaattt gaagtctgaa
63241
       tttcaqatqa taaqqcaqaa qaqttgaaqc agattgaggg cagagaattt qqqaaattct
63301
       atttgaagct gtgactctca tctatggatg ttcagctgca gagtctcacc agaataatgt
63361
       aatgttgagg ctgctggtgg cattttggag actatgaaag atacacaaac atggaaacaa
63421
       gatagtggtg acctggagca ataaactcta cttgtgtagc tgaggatgat cttgtacaga
63481
       gtcctggcaa gaaggtagag acgacaggtc attcttagat ggagtaaagg actgctaatt
63541
       ttcagacttc agtttgattc agaaactgtg tccctatcag cagacagcca tgcctgggga
63601
       gcaccagccc cctgccatgc acttagataa tggagggagg gttttgtggt cacatgtggt
63661
       aggccccaag cttcagattc ccactcatga ctctctttca ctccagtctg gtgacgagtt
63721
       agggactcta agctcaagga cccaaggttc cccgaaacag actcagccca gtcctactcc
63781
       tgagccctct tcttgttgtc tcctgacctg gtgcccagga cacccccct ccccacttcc
63841
       tgccataatc ctgagtgcac gcactctgtg atgaggccta gctgtcacat gcactaattt
63901
       tcaaaqtqct caqatttqqt tctcttcttt ctaqaaaccc atttcaqaaa aaaqqaacca
63961
       gatcttaaca gtaaggagac tgctgtgcca attgtcagac tccagtttgc ttaggtctga
64021
       ttgactacac agattaaaat cctgggaagg aattaggctc aaactggagt ggagggtgg
64081
       tgggggaaag gcttatactc tcattatgcc acagcatcag ggtaggctgc aatgcccttc
64141
       cacacgtggt gccctgaaaa tgtccctggt tattcttctt tcagccatca tgtacttctg
64201
       aggtacctat ttctatccta gtgtcaggcc atatgccatg atttctgtcc actcaattag
64261
       cagaaggccc cagggcactt tggtttgaaa actggctata tctgatgagg ctttgctaat
64321
       gtgctctcag aagcagagtc cttctcttat tgcctcctgt ggggagattt ggacctctgt
64381
       agcagagaag actgtaaagg tcgtagagaa actgggtttt cggaggctgc catgcccatc
64441
       ttgtatacat gtatgcattg tgcaaccatt attcagaagg gagcataagt cagggcatgg
       gaacagagac cccaaacaga tattggcttc caaaaaacgct caaataaccc catccccaq
64501
64561
       tgcattagga gtcagagtat tgttggaggt aacctgaagc tctggtccaa gtgctttcct
64621
       aggtgttcaa aggtctgaat gagtggagca tcaggccgat tggaggagag gagctgacag
64681
       cacaggatgt ctgtccctgg tgtgaagctg gaggagagac tggtggtatt ccttggggtg
64741
       gggtgagggt gacagtgggg gtgagagcta gagggggtga ggggtcgggg gggtggttgt
64801
       attggcagaa gactagttag gtggtattct tgttgaactg aggcaatgga agggttagat
64861
       taaatcagtg gtcttcacag gaggtgtaga atgttccatt gaaatgtaaa agaaaaatta
64921
       aaacttttat ttttactttt tttttagtct aaaactaaaa agctaacctt caccaatgtt
64981
       tactattata cattttaccc tcactcaact catgcattgg gtgtccatgt catgcatcat
65041
       atcagaggca agtcagggaa gagaggaggt tctacaacat gggggatgga gaaggggacc
65101
       acagcaccct ccctggccca cctgctttca aaatctattg ctaggtctta agaactattt
```

FIGURE 4-R

```
gtgtcctggc agtggataga catattatca gttttcacta aactcttctc acaaaagaga
65161
65221
       caagtggttt gaagacattc ctcaaaggaa cccatagact gaaaataata tgaacaatgt
65281
       aagcaaaagc aaactcagaa aatggcaaag ttgacgattt cttactacta atatgatatc
65341
       cattatgatg attagtcagc tcagtagtag tcagctctga caactaagtt caaatttata
65401
       aaaaagacta cttgaaacag ggatttacac caccatatgt tggcccttga ggtattagct
65461
       aataataata taaacatgaa atcatgatca gcaagacatg taaatgctat aaactcaggg
65521
       caagaagaca aacctctacg atttttttt cagggatttt ccaagtcatg caatacttag
65581
       ttgtgtactt tttaaaaatt atttttggc cgggcgcggt ggctcatgcc tgtaatccca
65641
       gcacctttgg aggctgaggt gggcggatca cctgaggtca ggagttgcag accaqcctgg
65701
       ccaacatggt aaaaccctgt ccctactaaa aatacaaaaa aaattagccg ggcatagtgg
65761
       cgcatgcctg taatcccagc tacttgggag gctgaggcag gagaatcact tgaacccggg
65821
       aagcagaggt tgcagtgagc tgagatcata ccactgcact ccagcgcctg ggcgactcag
65881
       tgagattctg tctcaaaaaa aaaaaaaaaa atagtgctca gaaatctctt ttgaggcttc
65941
       ttatttaata gtaaaagaca aaatatcagt caacatcact ggaaaaaaca gctqttgtat
66001
       ttgccatggt taaagtgact gagttaatac agagagaaga tggtagtaca taaaaatgta
66061
       ttctgttgga agacacacag actttaagtt tgaagaataa gttttaaaac acatggtgtg
66121
       ttgtggaagt tggctatatg gttggatgca agttgctaac atgtttcacc ttgagtattt
66181
       gctatgcttt ttgataatga cattcataaa gaaatatttt ttgtgatcta ctaaaggaaa
66241
       gatagatatg ttcacaacag tgaacaactt agtaaaacat gctgtggttt ttatgggtga
66301
       aagtaaacca ctgagggagt ggctgccctc tctggaatac aaaatgaagg gtggttggtg
66361
       ttttgtatga ccagcaagac atgtaaatgc tataaactca gcaagacatg taaatgtctc
66421
       gttctaccac ttgtctcttt tgtgagaaga gtttagtgaa aaccagaaaa cgtaatctgt
66481
       ctatctactg cccaggatac aaatagttca taaggcctag taatatactt tgaaggcaag
66541
       ggtgtcatgg tcccattctc tgtccccgt gttgcacaac ctcctctcat ccctgactat
66601
       gcctctgata tgacacatgg catggacacc tgatgcatga gttgagtaag ggttccatgt
66661
       agttaacatt ggtgaatgtt aattttttt atttttagac taaaaaatat gtagaaataa
66721
       atgttttaat ttttctttta catttcaatg gatcattcta cacattctac tttgaagact
66781
       actgatttaa tgttaccctt ccattgcctc agttcaacat gaacaccacc tcactagtct
66841
       totgccaatg caaccactto ogctaccoot caccooctco acctotcact gccactgtca
66901
       ccctcaccca accccaagca gtagcagcac caccaatctc tcctccaaaa ctqqqqqqtq
66961
       gttcgtgttc tggtccatga ggactacatg tgaaattcag caatcacatt attcatttac
67021
       aaaqtacaac aaqaagttqa aqcaaqaaqa tcatqaaata ctatqqqatq tcaataatat
67081
       ggttaattaa aaaattaaaa tatagcagaa tctttatagc actttgtatt gagatgtgga
67141
       atgagactaa aaatctttct tatgattcca aggtttactg attatctcaa ggcaaacaac
       ttgaacgctg tgaatttaaa gatgagtttc cttaacaaag aacaagtgct ccaaatttgc
67201
67261
       tgacctccga tgtgctggcc tgagattgtc acaagtgtga tacatagcag aaagaaacac
67321
       67381
       ggtaaaggtg atatttcagc aatgaactga cgtaacaaat gtgctttaga agaattgtgt
67441
       tatagggaag gcactttgaa aattgacgtt tggaactgtt tccattatca tgtgattttc
       atgccaaaac gaagcgtgct agtgtcacct atactctcat agccacaatc tgcaaaatgt
67501
67561
       agaagcatac ttctaaatcc attttacaat attgcaaatg cagaatttca agtgttttaa
67621
       aagtcccatt tgttaaaatg atttgcaaga acagctgagg aaaacatcat tgaaaatgtt
67681
       gatttcatag acaaagaaga gttttcacat ttgcaaaatt gatagatcaa atttaaacag
67741
       taagaactat gatttaataa gtgcaaagat acagttcttc tattcaggtc tatttaatct
67801
       ttqtqagata tcttttttt tttttttaa agaatagcca ttaagaccaa gtatggacat
67861
       taactgaact tacaagtaca ctttctggtc tcataaagta ttaaactaag atttatttaa
67921
       atcattttta atgatttaat cactaaatca ctaacagatt agtggaatca ctaaacagat
67981
       tattgctaat aactttaaaa tgaaaagaaa aaggtatatt gtaccactca taaaaatgaa
68041
       acaatttaaa attattgttt catctttacc acatccttta atttttttag tgttctttat
68101
       aatatgtaac tcattaacgc agtctcatgt gcaaaacgtt tatgaataca cgaattgcga
68161
       gtatcagacc aatcagacta tggggtagaa ggaatacaac ttggtgctta catgagacaa
68221
       ctctgtgaaa gtggttgaca cagtgaggac acacagtggg tgctcactaa tgaagtttcc
68281
       tctccgagct tggtgactta ctcgttgaga gaggaaaggg agaccgagtc aagaatggct
68341
       cccaactgtg gccccgtggt ggtgccgacc ccggtatcat tcactgagac tggaaacaca
68401
       gaagcaggtt ctggcgtttt cctgggaagc aactaggtag tttgggtctg gaccgcttcc
68461
       gccggcctag gaagatctag aggagatgtt ccctaggcag ttagattcac catcttcagc
68521
       agctcggggg cattctgggc tggagatgaa attcaagagc catcatccgg caggaggttg
68581
       ttaaaaccat gggagtggct gagatgccca gagtgggcct tggagtggga gagcgggctg
68641
       gcacggtggg accctggggt gggaccacag agaaaagcca ggccqcggag gccgagaagc
68701
       tgtaggtacc caggtatgtg aaaaatctgg aggtgggggc cgcgggtgcc aactctggaa
68761
       actgcactcc aagcgtttca ggaaggaaga cgtggtcagc aggctcagat gccaggaaga
68821
       ggtgagcgag ggaggctgca cggcacccag tggctttggc aactaggagg tcattcagga
68881
       ctttgagggg caggtgaagg cagagcgagg agggttggag agggagcgtg tgcacgtggt
68941
       gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtaggt gatccaagtg
```

FIGURE 4-S

69001	accagaagga	cacctagaag	agtggacggt	tggcgaggga	atatatatat	atatatatat
69061						
				aaggacgcct		
69121				tgtgcggggc		
69181				cgtcgggcaa		
69241	ggtgtggaag	cccggcgggg	ccagcgcagt	tgaggtctgg	ggagcccggc	tggcatctgc
69301				caggaggcgg		
69361				caagtttccc		
69421				ccgctccgcg		
69481				tgctgaggcg		
69541						
69601				gccctctgaa		
				ccggctggcc		
69661				cagccctgcg		
69721				gcgcgcgagg		
69781	cagccccgcg	gaccctgcgg	cccaggcggg	aatcagcagc	gccctggggt	ctgaaccgcg
69841				ggcgctgact		
69901	gtcccctgtt	cctgtccctg	tccctacccc	tgcctctgcg	gtggcccgag	ccccagcggc
69961				tggcggccta		
70021				ctgggcaaag		
70081				tacctggagg		
70141				cttacctctt		
70201				ctttctgccc		
70261				ggctggcaga		
70321						
				ctagggtatc		
70381				aggagctggg		
70441				tggctttccc		
70501				agctggaacc		
70561				agtggagcca		
70621	ctctgtcact	tcacacctct	aggagtgttg	acagcaggtc	tggggtagtt	ggcctggcct
70681	ggctgcagct	tcatggggcc	tggcttgctc	tgaggatgat	ggtatggggc	tgccctctct
70741	aggaataatg	acacctgcat	aggtggtggc	tgggagactc	tttgacctct	cagtcccatc
70801				cctagctctc		
70861				ttttgcctct		
70921				gaaaatgtca		
70981				cctaaagctg		
71041				tctgtatgct		
71101				ggaactgact		
71161						
				ccgagaagta		
71221				aaatatgttt		
71281				tggtggtgct		
71341				ttcattttcc		
71401				ggcagataat	-	
71461				atgctcattg		
71521	ggctttttat	tatccacact	tcatagggaa	taaaaccgag	ccacagaaaa	gttatttaac
71581				acaggattca		
71641	agttttttt	gttgttgttt	gtttgtttga	aatggagtct	cactctgtca	cccaggctgg
71701	agtgcagtgg	cacaatctca	gctcactgca	acctccacct	cccgggttca	agcgattctc
71761	ctgcctcagc	ttcccaagta	gctgggatta	caggcgcccg	ctaccatgcc	aggctaattt
71821				atgttggcca		
71881						cgtgagccac
71941				atacactcta		
72001				tcacttgttc		
72061				tatttcaggt		
72121				atttagcaag		
72121					_	-
				gagaagaaaa		
72241				atctttcttt		
72301		-		ctggagtgca		
72361	-	-		gtgattcccc	-	
72421				agctaatttt		
72481	ggtttcacca	cgttggctag	gatggtctca	atctcctgac	cttgtgatcc	acctgcctcg
72541	ggctcccaaa	gtgctgggat	tacaggcatg	agccaccatg	cccggccgat	atctttcttg
72601				gtcttttaga		
72661				caggagaagc		
72721				aaataaggct		
72781				gaagcagcaa		
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

FIGURE 4-T

```
72841
       attgtgaggt cctgagaaga gcttgctctt ctgggacaga actgtatttt tcttctaaac
72901
       tgcccatgtt ctggggagtc ttcccgcctt ttggcttcag caggaccctt ggtcattgtt
72961
       acaacctgtg tcatcttagt ggagctgctg ctggtttctg tctgaacccg atgcaatggg
73021
       tctcatacct gtaaactggg ctccaggaag gcagctttct ctaagttgga aaatgaagac
73081
       tcaaggtgga gggtgtttcc caaagccgat accacaagat attaataggt gtttttttcc
73141
       tatgacagca gttctaggat ggtcaaataa gtgcgtcggg ttaaacaaag ttaagcagct
73201
       ttctttactg caggacttct caggtgttga atttgctagt agaaactgtg catgaatacc
73261
       cataagggac tacaggatgc agtgttttcc aagccttctg acctttcatg ttctgcagac
73321
       tgcactttga aaaatgcttg tttagactaa ggctagctgg gatccggtta aaggtgcaga
73381
       ataaaattcc ctgaacgtgt cggacttaaa tccttgggct ggaatcctcc cactgcagtc
73441
       cccactctac ctcccctttc cccaaaacac tagcagaaaa agtcatctgc ccctcctct
73501
       tctggcagaa tagtactaag ggcttggatt tttttctcat actgtaagtt catttaattg
73561
       tttaatgaat aaatattacc ctccctctag gttgcttgta gcctgctggt tgcactgttt
73621
       atgaaacagc tgtgaggaca ggtgggccqt aatctctggg tagctaaaqc ccaqcaqcaq
73681
       cccgaggatc atgtgtcaac cctgtaatac tgctctgtgc acacaggaat tatgatgtga
73741
       gctcagtaag acacaacctc acgattggac atgcggaggt gactcaggcc caagtcaggg
73801
       ttacagctag cctcccqqta aacaactqac ccatccttcc tqRqctcttc tYcccaqqat
73861
       ttcaacagca ccacagaaat agccattttg ctcatggtta tttcccagga ccacaggatt
73921
       tgcctaagtc actgggaggc tatgtgtctg ttctgagcct tcccactctc ctaaagggca
73981
       gatgaagatc agagetttge accetgtgat gecattttaa teaaccetge ttggttttag
74041
       aggattgctc cYgtgggtca cttgaggcag gctccacctt ccccaggagg agtggcagag
74101
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74161
       agggtttggg gtgggctccg gtgggtcagt tggggtgtac tccttttctg tgtgtgtgga
74221
       tgggggtggg ggttctggta aagcttatca ggcttcgcag tcacctgtga tgtgggcttc
74281
       cttctgggaa gaaaggaagg agtgggatgg ggctgtcagc ttttcatcct agcctgcccc
74341
       tgtcctctgt ccgcctctgt gctgaggcag ttcctgctcc ctgagtctct gtcctttcct
74401
       gggaaaggtg gaagcagttc atggtctttc cctttcagag gaggagggga tggaggggat
74461
       tgtattagca actgggattg aagctccccc tggcagttat ggggtgccct tgggagggct
74521
       gctttagggg ggctttctga gaagaggcag gtcgggctgt acctgagacc aatccccttg
74581
       ataaaatgca gccaggcctg aagcacgttc agaacggaag cagcaaaggt gatgatatcg
74641
       ctcgttgcta ctcagctttc aggaggaggc tgggcgttag agggaggctg tggcttatct
       cctgcagctg ggcaggacgg ctgagtttac tgttgtaaag aggaagccgc cgctttagtt
74701
74761
       tcctcttqtq aggqctqtqa agaqqqccaq qacactqcat tcaqqatacc acaqccattt
74821
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74881
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75001
       cgcacgcact gactcagctg agcctcctgg gtggcaggca gcacctcacc cgggtgcatc
75061
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75121
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75181
       tggcactggg cttcctttct ggagggactg tggcaccatg aaaagttact gtttgttgaa
75241
       actggcagtg ttttagaact ttctaacttt gggacacttc ttcaagttca tcagagcgtg
75301
       ttgcatgtaa cagtgagata agctgtatca ttggctgact gatgctggtg aattcacagc
75361
       taagcctccc aagcctgctg gYttcagctg acaaagggtt ggaagccagg cgtgaacatg
75421
       cagctggagc tgaagctctg cttggcatct gcagagtgag ctttccttgt caggcctggc
75481
       75541
       ggagctgtct gccaaggaca tccagaaggc agcagatgtg ggggcagctg ctaaggcctg
75601
       cagcacccca agtgggttac ttggtccata ctaagatatg gaattaatta ttttgttgtg
       qWtqctqttq tttcttqctt ttttttttt ttttttgaga gaaggtcttg ctctgtcacc
75661
75721
       caggctggag tacggtggtg ccatcatggc tcactgcagc ctgcacctcc aggactcgag
75781
       caattctccc aactcagcct tccaaatagc tgagaccaca ggtgcatgcc accacacctg
75841
       gctgtttttt tttctatttt ttgtagagat gaggttctga catattgcac caggctgatc
75901
       tegaactect ggeeteaage gateetette ageeteecaa aYtgettgga ttataggeat
75961
       gagccactgc acceggtctt ggaatgaatt atctaccaac tatttaagac actggtagta
76021
       gttctgcgga agatttttat gggttctgta aaacaaaaag ggttctgtat gttaatgtta
76081
       ctctatgatc cttgatttta atgagcctta tgaatgtgag ttgaggggct gtggaatgca
76141
       acatetecea ataactgace acaggacetg ttttaceage aacaggtate aatttettat
       ggcatccagt ttgggaaagg ttgatttaag ctaaagagaa aggaagatat gttatagaaa
76201
76261
       gctgtgtcct gaaaagtatt tttagttgat tagagcaagc taaaaatgct ttgtgcgctg
76321
       gtatgatggc tcacacctat aatcctagac cctgggaggc caaggcaggc ggatcacttg
76381
       agaccaggag ttcaagacca gcctggccaa catggtgaaa ccccatctct actaaaaata
76441
       caaaaattag ccaggcatag tggtgtgtgc ctgtggtccc agctactcgg gaggctgagg
76501
       tgggagaatc accggagcct gtgaggtcga ggctgcagta agctgtgatt gtgccactgc
76561
       actccagcct gggcaactga gaccctgtct ctcaatcaat caatgaataa atgcatgctt
76621
       catgagcaaa catggcagga tctggcataa gagccctcag acatcaagga cttccctccc
```

FIGURE 4-U

76681	20002222	aaattaaaaa	gggagcctgg	++ a a a a a + a +	ataaataaaa	cotatatata
		_				
76741	tctgagggca	tgaaggaggt	aggaaggtgc	tgctggtggt	ggatggcttc	tgtccagggt
76801	aggagctaac	acagagatag	gtctgaatgg	tgaaactccc	tttggcctgg	cctctcaata
76861			gaactcttag	_		
76921			caaaacctca			
76981	agccaggtat	ggtgatgctc	cctccctccc	tcccttcggc	aattaaggag	ggagccctaa
77041	ttgccaaaac	ctgccagaaa	aagaagtttg	ttttcctatt	tttctctctt	ttcatagagt
77101	_		ttctattctc			
77161			atatcctctc			
77221			caggtcttgc			
77281	aaataaagca	tgggtatggt	tctatgtatt	aattttttca	tttactgtat	ttttatttt
77341	ttatgtgatt	gcaccatcct	cataatcata	attctgatta	cttaacatct	ttttcaagtg
77401	agtatgctct	aatttaggca	ttttaaagct	atttatgtaa	ataatqcaqq	taaatatcct
77461			ttctttttt	_		
77521			atggcatttg			
		,,,,,				
77581			gtgaggtttt			
77641	ataagggggg	aggtgaggat	ccagtttcgt	ttcagcctga	tggagcctcc	tgggtctggt
77701	tctttgtgct	gttccagact	ttctctcccc	tgtcacctcc	tttgatggcc	tccagcttcc
77761		-	atggaaatcc	-		_
77821	_	_	tcttgatgtc		-	
77881						
	-	-	ccactcctct			
77941			ctcactctga			
78001	ctgtctgtgt	catgacttag	tcccacatgc	cactcagact	cagagcagca	agccctcctc
78061	aggcaccgga	aatctctctg	gtacctagaa	ttatgccact	tagagetgag	agggccttag
78121		_	tttatctcac	_		
78181	-	-	gtgttcccct			
					-	
78241			tctccattct		-	
78301			aactgtggtc			
78361	ctgctcccaa	cgagggtggc	ttgtcgaaaa	gggtgcagta	ttaatccatt	ccacaagtgt
78421	tatgctgggg	actgtgagga	gcccctgccc	ggacacatac	gtggacaaag	agaagcagca
78481			cagaggcagg			
78541			gatgagagag			
78601			tgggcatgtt	-	_	-
78661			aactgagtta			
78721			aaatatatat			
78781	attttatata	tatatata	ttttatttt	aaaattgaga	Ygaggtctca	ccctgtctcc
78841			cgatcataac			
78901			ccctagcagc			
78961						
	-		ttagggatga			
79021			cctcttgcct	_		
79081	tgagccacca	cacccggccc	cagagtatac	tttttttt	tttttgaggc	agagtcccac
79141	tctgttaccc	aggttggagt	gaagtggctc	aatcttggct	cattgcaacc	ttcacctcct
79201	aggtttaagc	aattctcttg	cctcagcctc	ctgagcagct	gggattacag	gtgcctgcca
79261		_	tgtattttta			
79321						
		_	ctcaggtgat			
79381			cgcctggcca			_
79441	ttgcaaaaaa	ggaaagaaat	aaggaaatga	agaaagcaag	caagcaagaa	tgaaacccaa
79501	ccaaccaagc	aggtggttga	ggccagtgac	tgttagtaag	gaatcagtat	gcgaggaggt
79561	ggatagagaa	agcttctttg	agggagtgag	ttttcagctg	ggtaaagagt	gttctaaaac
79621			cttgttagga			
79681			aggccttgat			
79741			ttgtgcgacc			
79801	agtgaggttt	gattattgtt	gcagctataa	cagtatcctc	atagtctgga	ggagggagag
79861	ctgaactctc	tcttgtccct	tctcaaacat	gggaacaaag	tcaggagggc	agggctgcca
79921	gatactacaa	attccctgag	tttgggaaaa	togaagccca	cctagttgaa	cagttcattc
79981			tttctcctga			
80041			ttgaaattgg			
80101			accaggtggg			
80161			catcctgcaa			
80221	atgccgcggc	agtttcccaa	gctgaacatc	tctgaagtgg	atgagcaagt	ccggctcctg
80281			agtgctccga			
80341			cccatcggg			
80401			gtctgtggag			
80461						
00401	ciccogegea	calagagtca	tgcagaccca	ggcaggctgt	gggtgtgt	cctgatatga

FIGURE 4-V

80521	aacacatcat	aaaaactaat	atgtccctag	agetatatta	attacttaca	caacaacaact
					_	_
80581			gagggatgtc			-
80641	aacccacttt	gctgctgatg	tgaaaaaata	cacaccattt	ccaaatggca	tttctctttt
80701	ctttttggaa	atttgaggat	ttcttaggag	acagcaattg	tatttcttct	catcacttga
80761			tgaacacagc	-		_
80821	-	-	gatagataga	_		
80881			ttacaagtta			
80941	tagaagatca	gaaaccaatg	aagtattaga	attttaatgc	agggaattgg	ttacacaggt
81001	ggtagagagc	tgagaaacca	aacaggggag	agagaggcgg	ctcagagatt	agacacagta
81061			acaggagtga			
81121			ggtggaactg			
81181			cagagatgcc			
81241			ccttccaggt			_
81301	gccagaatcc	tgctggcaca	cttgggaaac	acaggagagg	atgaggaatg	gatctgaggg
81361	caaacaggcc	caggagcagc	gcaagtgcta	tgaaagagat	gaataaggat	gagatggggt
81421			aaagagagag			
81481			tgacatctta		-	
			_			
81541			agaatcagct			
81601			tgttaaagga			
81661	gtggggccca	gatcagactg	gccttgtgct	ccctgataag	aagtttggat	tggagtctaa
81721	gtgaaatgag	aagccctcat	cctttcacag	tttatctcac	cctgggcttt	atcagatttt
81781			aaacatcaat			
81841			ctagatactg			
				_		
81901			cattttctta			
81961	actggtgtaa	aggcaagaac	agagcttcac	cactcataag	accagtgctt	tccttccttg
82021	aaaggatggt	gagcccataa	aggcaggagt	cactggtgcc	attggttaac	ctctgagtgc
82081	cagccttgtg	ttggataagg	tggggtggcc	ccaqccccaq	cagtgtgctc	atccctggag
82141			tagagaccct			
82201			gtctgcaggg			
	_					
82261	-		aaagaaatcc			-
82321			acagagtgac			
82381	gctcttctca	atgcccagac	tcagggcaaa	atggaagctt	tcttactcta	agtcttaatg
82441	gtgctctgtg	gtttccagaa	attcccctgc	aaacttctct	ccaaaaactt	tgttctgtcc
82501			tagtttgcat			
82561			aacttagttg		-	
82621			ccatggacac			
82681			gtcatgctct			
82741	gggcctcagc	ctcgtcctca	tctataaagt	ggagatgcta	acagctacct	tcatggggtg
82801	ttgtgaggaa	tgagggaatc	cacaggtaaa	aggcttcgga	cagtgtctgg	ttatagtgca
82861	tcccgagtaa	atataaqtqa	tttctctgac	ttcctactac	tgagacaggg	aacaatagca
82921			actatgggct			-
82981			ttatcaaatg			
		_	_		-	
83041			agttgaattt		-	
83101			catatctttt			
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83281			catcggcttc			
83341			cctctggggt			
83401			tttatatgta			
83461			tctttgtctg			
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83581	aagaagcaaa	ttagaagcag	ggagagagac	ttctacaggc	agggtcacag	aggtgatgtg
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83761						
			gacatacctt			
83821			agcaccatta			
83881	-		aaacaaaata	=		
83941			acacctctga			
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84061			agataaaaat			
84121			ggaacatctc			
84181			ttccaactga			
84241			gagggtgagc			
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FIGURE 4-W

	4					
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	-	_			actgccagca	
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	_					
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	_	_			gggaaaaaaa	
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85981		-	_			
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86041	aaaaacacag	cacgagaaca	ttgtgaagca	ttcacaagta	tgaatagctg	aatcaatcaa
86101	acggaagaaa	ggatatcaga	gattgaagac	caacttaatq	aaataaaata	agaagacaag
86161				_		
		_		_	aagaaatatg	
86221	caaagaccaa	acctacgttt	gatggatgta	cctgaaagtg	acggggagaa	tcgaaacaag
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86401 86461 86521 86581 86641 86701 86761 86821 86881 87001 87121 87181 87241 87301 87421 87481 87541 87541 87541 87541 87601 87721 87781 87781 87841 87901 87961 87961	caagacacat ccagagagaa ctgcagaaac agaatttca taaaatcctt aagagctcct aacaaccagc atgtaaacga aagacccaac tcaaaataaa aagttgcaag aggaagggca atatatatgc aagactcaac aagactcaac aaactcaaaacc aataacaaaca actcaaaacc aataacgaaa actcaaaaca actcaaaaca actcaaaaca aactaacaga aatgtccaca gagctagaga aatgtccaca gagctagaga atcagagcagt aagagaaaa actgatccca aagagaaaaa actgatccca aagagaaaaa actgatccca	tcaggaaata aatcgtcaga aggtcaggct cctacaagcc acccagaatt tacagacaag gaaggaagca attgtaaaga tagcatcatg gctaaatgcc agtgtgtgt ggatggagg tttaacctct ttacataatg acccaacaa acgagacaaa ccaaatcaac acataattgg gtctctcaga acacaactac tgaaggcaga atctctggga atctcttggga atctcttggga atctcttggga acacaactac tgaaggcaga atttttttga gagagaagaa cagaaataca atctagaaga atctagaaga	cagagaacac tgccccaagg acccacaaag agaagagagt tcatatgcag caaatgctga ctaaacctgg ctatcaacac atgacaggat ccaattaaaa attcaggaga aatatttacc gataaaacag gtaaagggat ggagcaccca caataataat attaacaagg agaatataca acgataaaacag ccacagtgca atggaaactg aataaagatc aataaagat cacattaaa ggaaagatct aacaagtca aagatcaat tcaaatagac gatacaat tcaaatagac gactaccatc attggataaa	cacaaagata ttgaaatgaa agaagcccat gggggccaat ccaaacaaag gagattttgt aagggagcaa ttcgaagaaa caaatcaaca cacacagact ctcatctcaa aagcaaatg actttaaacc caatgcaaca gattcataaa ggagacttt atattcagga ttcttctcag ctcctcagca atcaaattag acaaattag aaaatcaaca gcagtgtga aaaatcaaca tgaaataaca tgaaataaca tgaaataaca tgagaaatact tgaaataaaaa ggagaatact ttcctggatg	ttcctcgaga ggaaaaaatg cagactaaca attcaacatt cttcataagc caccaccagg ccggtaccag ctgcatcaac aggcaaattgg gtgcaaagac aaagaaaaaa aacaaagatc agaagtcta acaccccat cttgaactca cactcatca aactcaggat tcctgaatga ccagtgagaa gtggaaatt cctgaatga ccagtgagaa tcctgaatga ccagtgagaa tcctgaacac gtggaaatc gaagacaaga tcctgaacac cactcatca	agagcaaccc ttaagggcag gcagatctct cttgaagaaa aaaggagaaa cctgccttac ccactgcaaa taatgggcaa ttagccttaa agaagagc aaaaagagac aacaggcaa ttgtcctaa gagacctaca tgtgaatatt gctctggaac cacttacttt aatggaaatc ctactgggta caaagacaca taagaaacc ctactgggta caaagacaca tatagcacta acaataaaa acaattaaaa caattaaaa caattaaaa caattaaaa caattaaac gggtatcacc ctatgcaaat cccaagtcta

FIGURE 4-X

88201	atgaatagcc	taccaaccaa	aaaaaaccca	naaccanaca	gattcacage	caaattctac
88261		aagaggagct				
				_		
88321		attccttctg				-
88381	gatgccaaaa	catggcagag	acacaacaga	gaaaatttca	ggccaatatc	cctgatgaac
88441	atcgatgtaa	aagtcttcgg	ccgggcgcgg	tggctcacgc	ctgtaatccc	agcactttgg
88501		cgggcagatc			-	
88561		ctctactaaa				
88621		cttgggaggc				
88681	cagtgagccg	agatcccgcc	actgcactcc	agcctgggcg	acagagcgag	actccgtctc
88741	aaaaaaaaa	aaaaaaagt	cctcaataat	atactggcaa	accaaatcca	gcagcacatc
88801	aaaaagctta	tccaccacga	tcaagttggc	ttcatacctq	ggatgcaagg	ctggttcaac
88861	_	caatcagcgt		_		
88921	-		-	_		-
	-	tagatgcaga	_			-
88981		aattaggtat				-
89041	aaacccacag	gcaatatcat	actgaatggg	caaaaactgg	aagcattccc	tttgaaaact
89101	ggcgcaagac	aagtatgccc	tctctcacca	ctcctattca	acatagtatt	ggaagttctg
89161	gcaggggcaa	tcaggcaaga	gaaagaaata	aagactattc	aaacaggaaa	agaggaagtc
89221		tgtttgtgga		_		
89281	-			-		_
		ttaagctgat	-			
89341		aagcattcct	_	-	-	
89401	tcccattcac	aattgccact	aggagaataa	aatagctagg	aatccaactt	acaagggatg
89461	tgaaggacct	cttcaaggag	aattacaaac	cactgctcaa	ggaaataaga	aaggacaaaa
89521	acaaatggaa	aaacattcca	tactcataga	taggaagaat	caatatcatq	aaaatggcca
89581		agtaatttat				
89641	-	agaaaaaaaac			-	-
	_	-			_	
89701		ttctaagcaa				
89761	ctatactaca	aggctacagt	aaacaaaaca	gcctggtact	ggtaccaaaa	cagatatata
89821	gaccaatgga	acagaacaga	ggcctcagaa	ataacaccac	acatctacaa	tcatctgatc
89881	tttgacaaac	ctggcacaaa	caagcaatgg	ggaaaggatt	ccctatttaa	taaatggtgt
89941	tgggaaaact	ggctagccat	atgcaaaaaa	ctgaaactgg	actccttaca	ccttatacaa
90001		aagatggatt	_			
90061		ggacattcag				
90121	aagccatggc	aacaaaagcc	aaaattgaga	aatgggatct	aattaaacta	aagagcttct
90181	gcacagcaaa	agaaactacc	atcagagtga	ataggcaacc	ttcagaacag	gagaaaattt
90241	tttcaatcta	tccatctgac	aaagggctaa	tgtccagaat	ctacaaagaa	cttaaacaaa
90301	tttacaaqaa	aacaacccca	tcaaaaagtg	ggcaaaggat	atgaacagac	acttctcaaa
90361		tatgcagcca				
90421		atgaaaacca		-		
		-		_		
90481		ggaaacaaca				
90541		gagtgtaaat				
90601	gaatctagaa	ctagaaatac	catttgaccc	agcaatccca	ttactgggta	tatacccaaa
90661	ggattataaa	tcattctata	aagacacatg	cacacgtatg	tttattgcag	cactatccac
90721	aatagcaaag	acttggaacc	cacccaaatg	tccatcaatq	atagactgga	taaagaaaat
90781		tacaccatgg				
90841			_	=		-
		ggatgaagct	-	•		
90901		gcatgttctc				
90961		acatcacaca				
91021	cattcggaga	aatacctaat	gtaggtgtca	ggttgatggg	tgcagcaaac	caccatggca
91081	tgtgtatacc	tatgtaacaa	acctgcacat	tctttacatg	taccccagaa	cttaaagtat
91141	aattaaaaaa	agaaaaaaat	taggatatag	agggaaaaat	tttattagtt	gaaaaatttg
91201		acagccgctt			-	-
91261		agcatagcac				
91321		aatggggaac				
91381		atctatcccc				
91441	acacctgtaa	tcccagcact	ttgggaggct	gaggcgggtg	gatcacctga	agtcaggagt
91501		cctggccaac				
91561		ggcacatgtc				
91621		agagtcaaag				
91681		ggagactctg				
91741		acttgaggcc				
91801	tctgtacaaa	aaatacaaaa	attagctggg	catggtggtg	tgcgcctatg	gttccagctt
91861		tgaggcacga				
91921		cctccattcc				
91981		ataaagttag				
		uuug ccug	- Jugugugut	- g caacact	Lagituacay	y-cacaya

FIGURE 4-Y

92041	ttgcacttca	ttttcatctc	caggtcttta	gggaggaagg	gcagctggga	aggattgagg
92101	aagggagaag	cgaaggtgag	tggcaggaga	tgagtggaga	ttacagtagg	ccaggagggg
92161	ttgtggggaa	gggaggatgg	agaaagaagg	ggcaggtttc	cagaggagct	cagggagaga
92221			tttcacacct			
92281			ctggtcatct			_
92341			gggacccctg			-
92401		_	gtctcaagta			
92461			ttccaggtga			-
92521			aggatgcctg			
92581			tttgtgactt			
92641			cagaatgagc			
92701						
92761	-		ccccctctg	_	_	_
92821			tggggtccca			
92821			gaactgtctg			
		_	atctactcct	-		
92941			cgtgtggccc	_	_	
93001			ccctccctgc			
93061			ctggtaagat			
93121			agcatttgag			
93181			ctggggagtg			
93241	gtcaggggca	accaagggcc	atagagcagg	tggagcacca	gacaggtgct	gggaggtaag
93301			gtgacctgat			
93361	agaatgtcct	tgtgcgtcaa	gaggataaat	ctatttcagg	gatgacaaaa	ctgctcctgg
93421			ggcctggagc			
93481	ctccttggca	ggagtgtgct	tctgccaggt	gcaagtgtgg	gtgggggaag	gaggggtgt
93541	gccagctgta	gcccagcaaa	tgctggcgcc	ccaggggcta	gtgcaaggtg	cagcaggtga
93601	gatagtggac	agacagacct	tggcccatca	gaaggaagtg	ctttctaaca	ggggcaccag
93661	atcagttttg	ttcatacaca	cactcataga	cacactcact	cactgtatta	gtttgcactg
93721	ctataaagaa	atacctgaga	ctggtaattt	ataaaataat	gaggtataat	tggctcatag
93781			gcatggcagc			
93841			gcaggagcag			
93901			gaaggtgcta			
93961			caaggagatg			_
94021			ccagccccta			
94081			gatgcaaacc			
94141			caaccctcta		-	-
94201		_	taggggaggt			
94261			agtgaataag	_		
94321		-	taagataggg			
94381			ctttctgagt			
94441			tggttttgga			-
94501		-	agtgacccct			
94561						
94621		-	tgaattctgc		-	
94681		_	aagagtacag		=	
94741			agccaagccc	•		
			taagccatca		-	
94801 94861			cttgggctcc			
94921	gergragera	acticcagii	cttccaagct	Caaggggagt	gagecetgag	gagttageet
			cttgtgccta			
94981			tcaactgaag			
95041			caccagtttg			
95101			ggtaggctgt			
95161			tgtgtgtgtg			
95221			ttgcttcttg			
95281			gttgcatgga			
95341			tctcatgcgt			
95401			ctgggtgtgg			
95461			tctgaggagt			
95521	tgcttggctg	agctccattt	gatggaggac	agaccagaga	aagctgaggc	tgggggctcc
95581			ccgaagcagt			
95641	aggggaaggt	aaattcctga	aaaggagcca	cctctgtctt	gcaggttaaa	atagccttgt
95701			gggtaggcag			
95761			gaactgtggt			
95821			agctgcttct			
		·			*	-

FIGURE 4-Z

95881	actgatttct	tcaggcctgt	aggtatcaca	ctagtacctg	gagaggagga	gggctctagt
95941	gggtcacagt	tgtcactgag	tccttgctgg	tggctgtggt	tgtggtagaa	taaatactca
96001	ggaagctact	gggcccatgg	cacaaggtag	ggcaggtggt	cagttggttt	ctggcatttg
96061	acactgtggg	atggcaccgt	ggggaggccg	ggttccactg	ggggcagaca	gaaacatgag
96121	gtaggagaag	agtgctgatg	gcctcacctt	aatgctgggt	aatttttctg	cagaagagac
96181	ttgcagtgac	ataatctgat	gtctgtttca	tgaatgagga	aggtagagtc	atcacaaatc
96241	agccttgcaa	ataagcatgg	gcttgtggca	ttttaaacca	accttgggcc	caagagccag
96301	tgtaatcatc	ttttggtgcc	aaggcaacag	gtccagaggg	acctgaattt	ggtgccgatc
96361	aatccctctc	cccaaacaga	ggtacatatc	tgtgcctgct	ctagcagcgg	cagtcaggat
96421	ggtacacggc	gggctagagg	agggagcagc	agggctggag	gctgggtgga	gcagccactg
96481	tgccatgggc	cgtgtgactt	tgtgccagcc	ctttcccatc	tctgggaaag	tgtctgtgag
96541	aagtaggctg	atcttgcaga	tctccttggc	acccagtagg	tctgctgcca	gccatggggc
96601	ctatgatgcc	tgtaagcttg	gatggcggtc	gctagtccac	ggtcctgagc	actgtctcga
96661	ctcctttgta	aaacaaggag	attggattca	ttgagcatcc	ctctctctc	tggctccaat
96721	gccccaaatg	tctaactgtg	tgaaatgcag	tgtgattgtc	tctctgtgac	cctattcctg
96781	gtcctttctg	agaccgttca	tatgttggga	ctgagagttt	gtgttatctg	aagccagcat
96841	gctgtccaca	ctgtggggaa	agcctgcatg	atttgctatt	gtcctcccct	ctagtgccct
96901	gtggttttag	agcccctgcc	atgtggtctg	ccatttgtct	ctctgtctcc	tagggcattt
96961	gcctgcttta	atcttctgtg	ggctgtgcaa	acagccctga	gcagtgcatg	gtgaccacag
97021			gtgttctatc			
97081	aataattaga	aacttcttaa	tggtagggcc	agcaccagtg	attaatcata	gcaaaattct
97141	cctgccacRc	acacagcaaa	gagtctttat	cactcacccc	aattagcttc	tgatgtctcc
97201	cacttttcct	tgtccttggc	tcttagaaag	aaaagtttca	agatgattcg	gtcccagtcc
97261	ctgtctctgc	aaatgccgcc	acagcaagat	tggaagggcc		

FIGURE 5-A

>2:179587401-179684100

```
attgagaaaa caaatctacc tatttatgca gcatatttcg cccccttctg attcatgctg
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       attaggaagc atgacagctg gtgacagcag caatacatta caaattgtta cagagaaaaa
121
       gcggggccaa atgaaacgtg atggtctatg attcacaatg aaaagtggta aaggagaggc
181
       gagaccatgg catataacaK ggaaataatt agttgaatta gaagagaatg gtaggaacaa
241
       caatgattta catgaactct tgagtaattg ttacagacat tgttaagatt cgatctatat
       ttaaatgggg ttctgaaagt tgttttactt taccttccag actcaggttg gctgtgcttg
301
       atacttggcc tacagcatta Ytagcaacaa acgtgtaagt tccttcatct tctggataag
361
       cttcqqcaat ttccaqttqa taaqtqtctt caaattqaqt cattctaaaq aaccqaqatq
421
481
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541
       gagatacttc aaccacaaaa atgagtggat ttttacaatt tacctgcaaa cacaatgtta
       ataatactag tgcctacatt tcatatttga cttaataaca tgatactttt ctctqqqcat
601
661
       gccatatcta ctattgttaa atgatttcct ttcatcttca agaaggaaat gtaatgatag
721
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781
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841
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901
       ggcttgtagt tgccttctgg gacaggaaat gagaaaaatc tccacttttg gtttgcagaa
961
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       tgaaggctgt agaaaaaaa tctctatctt tgttactaat gagcaaaagg tttcagtacg
1021
1081
       cagtatatat qqcacaaata attqtaqaqa aaataatttt ttaaataaaq aqqqtqattt
1141
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1201
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1261
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1321
       qcactttaat tttaqttaac tqtttqaata qccaaaatca aagccatctt qtttttqqaq
1381
       cacagtcact ataccacttc ttggtctcaa aaccatccaa gatgatcttc taatagtcca
1441
       atcatctage atttgtctge attttaatge caatacttgt ctataaaagt tactctcctg
1501
       cccatgatgg tagatgtgta taaatggcag gttctcctct tagagtaaca aatctgttca
1561
       gttccttaga tagtaaggta aagtagaaga tgaaatcctg gccaggcgcg gtgcttcaca
1621
       cctgtaatcc cagcactttg ggaggctgag gcgggcagat cacgaggtca ggagttcgag
1681
       aacagcctga cgaacgtggt gaaacctagt ctctcctgaa aatacaaaaa ttagccaggt
       gtgqtgqcac acacctataa tcccagctat tcaggaggct caggcaggag aatagcttga
1741
1801
       accogggagg gggaggttgc agtgagccga gatctccagc ctggtgacag agcaagactc
1861
       catcaaaata tatacatata aagaaaatga aatcttgaca ctacaacttg tcagctgtgt
       ggccttggaa atgtcattta agctttctgg attagtcttt tcatttgtaa aatggcatgc
1921
1981
       qtaataattt atgggctatt cgttgcatat aattgctgtg agaattaaat gatataacac
2041
       acatggaagg gctttataag ccactggcac aagtcagtca ttatagcaag aatatctaac
2101
       atcacagatg gaagcaacgt tgtcttcaat aacacgccaa aagacagtgc catgtgatat
2161
       2221
       gtgtgtgtgt gtgtgagatc atcaatggta catcetetta caaggttete tgettattte
2281
       tactgacage ttetteettt ggtgaactga atgaggeace aggatacaca tgaactgeea
2341
       ctggacatga actgcacaca ataagtgagt taacaggtaa aacttttctt ggtagtggac
2401
       ttggtgcttg tggctgtgat gccatgatct gcgttactca ttagcctctc gtgtcttctt
2461
       tgaggccatt cttctcccat attactactt ctgcaatacc ccacttgtct ctcctgactg
2521
       ccctggctga gggcctcatc cacgctctcc aggcctattg taataatctc tctccagttc
2581
       ctgactgcca gtcttgcctc ccacatctgt ccatcccttc tttccctatc acagtatcac
2641
       ttctaaaaag taaacctgat catggtaccc aggggcttaa aaatcctgca gtgtctccta
2701
       aatgtaaaca agatcaattc caaaatcttc agcatagaat accaaaaact ttagcacggc
2761
       ctttgctgta ttatccagcc ttcttaccca ctcatgatat cactttccaa ctgtacttaa
2821
       accacttgct tctagcacat gaagcattat tgcaagtttt gatgacttgg agatgttgtt
2881
       ttctcatcat aggatgccac tgtgttcaat gatcctacat atttttcaat gctcagttca
2941
       cacatctttc tctggctctc tcccagacag agaatgatga gtacgtgggc ctgttaatag
3001
       cacttacaac cttgggatat agttgtgtgc atgcatctcc tcacctacat gtcaagctcc
3061
       ttaaaggcaa gagcaagatc tgcaccccag cacctagggt aatatctcaa tagcagggaa
3121
       acaataaatg gtagaattaa aattgcacag atgcttaaat gaataacaga caatatcatt
3181
       gttaaactaa ttattcatca tttctgttta gctagctgtc actctgtaag cctccaaatg
3241
       acactgactc atcatctgta gaataaacag caaaaaaata gcttttttac attttaagat
       tctqcttttc caaattactc ctctaccagt aggtggcact ggagaccttc aataggtaac
3301
3361
       attttcqctq ttaqaaacaq cacctqqttq ctcaqqqcca cqtttcatqc ttcaqaaaqt
3421
       attacaaccc ccaagaacat gggagcttct gaagactccc aatttctttc caatttgtgg
3481
       aaagcagggc tacacttact taaggcaata cctggccaga ggaagttctg taaatatttt
3541
       tagtcccagt ggtatgaaac tatgtgagtt ggcaagtttt tgaagggtca ttctatttaa
3601
       tgaatttaat ttctttcata tagaaaacaa atttataaga ggatgctaaa accactatat
3661
       gtgtacagat attaccacac ataggaagtt aatgatcttc tcagtttaca aagcctattc
```

FIGURE 5-B

```
3721
       aaaccttttt aaagacattg gttatgcaga aaagatagtg aaatttttct ctttctaccc
3781
       caattggtgt cttgtagagt gcttcaggtg tatttctaca acactttaaa ggcaatacta
3841
       ccatatgtta atatgttata gacttaaaag cactatacca atatagttaa gacaaatatt
3901
       actactttga atgatgtaca tatatgttta tattaaaaaa ttcctctaaa aattaaataa
3961
       atggataaat tatttagtgt agctttaatg aacttgcttt taaaatatat tttgtattat
4021
       tgtgttagta ggatattatc aaatcagtcc tcatttatta atatttagca tttcttgaac
4081
       actatccctc aaatatacag tctatggtat ttgtccatac tggccataca atactaaaca
4141
       ttgatgttta tataattcct ctctatggct ataataaaat gaatgtattg agccccagtt
4201
       acctggcagc catgcctata ggtgctttac atacattata tcttttaatt atgctcataa
4261
       aatcaaatag gtctattaga tttctagatc accatctcca ttcctgagga ggaaataatt
4321
       gggtcagaag accaactgaa gtactaacct gttgagaaaa ataaatcttg acaaggtaga
4381
       gattggatta taaactaatq qqaqaaqcat aataaacaaa acaatacaac tttqcaatta
4441
       cttttgcatc agcctaataa gagggctggg agatgcccaa gctttgagag tttccctttg
       gctgggaaac tctcaaataa ttgtgattat agacaatcag ttatgacttg aagtggttcc
4501
4561
       acatatattg tctcattcta ccaagatcag attcctggga tgaggaaatt ggctggtggt
4621
       acttgagaag catgccccaa ttaaaaatgg tagcagctaa ctctgattga ttactgtatg
4681
       atgagcactg tgctatgtgc tgacttgagt tacctaactt aatcttgata ataatcttaa
4741
       gtgtttggta acagtcattt aaccatcatt aattagtcca gtcaacaatt acttatggag
4801
       tatctactat gtatcaggtg atattctggg gcaaccatcc actcttgttt tcatagagct
4861
       taccttctag caggtactat ttttcagatg ccaaattcta ggcactaaaa cggaattcct
4921
       agcctcataa aatatatttt ctaggattga atgcaatcat atactcaatg tattcatgac
4981
       agaaggagaa cgagagacat gatatatatt gaaqqcaaqa ttcaaattca gcatctttqa
5041
       caatgaagcc ccgacttttg accactatag gatattgtct tccaaaggat acctttcaca
5101
       caagcattgt ccatagactg aataatgtct tatataaatg tattattctt ttgaattata
       tgtagatgct attataatct aataatttta gttttgtcat tgtattttat caatgaagaa
5161
5221
       attaaagtgc agctacaatc ataaagggaa catgaccttt tttaatatta qtgaaaaaca
5281
       ctaattttt tattgtgata aaSaacacat aacataacat aaacaaccat tattaagggc
5341
       5401
       tagatttcca ttaagcttca aattatgcat gagagatgtt tgtgatggag gagaagctga
5461
       cagaatgttt ttcccatgta attatttgta agtattggca atgacacctt ttgttcttaa
5521
       acctacctgt tccagaaacc cggcattgaa aacgggctgg ctgcccttca gaagtgacag
5581
       tgtcctgaag cggggtgatg atggcaggtg gataaacagg catttcctga tcaggagaca
       caacttctgg aactaaagaa agaaaccaca agatttgtca tgattaagtc accatagaga
5641
5701
       cctcacagaa gggagcatgt aggtttatct taatttattt cactgcagag tgctttcaaa
5761
       gttgggtagc aatctacttt tatgagctcc aaattgtatt tttaaatgca ctgggaaagg
5821
       acaaaagcct gcttcttagg ttttattttc agctggaagt agcgaggcat tcctaccttc
5881 .
       cactgagagt gaagctgatg ttgtggcaac accatagtca ttcttggctt cacaggtata
5941
       gactgccgca tcctctggga aggcttcaat tagcaaaagc gtgtattctt gcccatcatg
6001
       aagaaatttg cacttgaagc cagtggaaag cagctgctct tccttgtacc aggaaatttt
6061
       gggctgtggt cttccggata tcaYggcaca gaagcgggca ggcttgccag actgcacagt
       gacaggctgg agctcctgca gaacttgggg cggttcagga gctaggagta aatgttgaca
6121
6181
       aatagcccat gaaaaagtgt aaaaacacaa gagagcatgc aaaactctac attaatttgt
6241
       tgctggctag ttatacatcc agagacaaaa ttttggaatt gtggtatttt tacttgcctc
6301
       agaatattag aacattettt gtgetaagaa tgaagaaage aettggaatt tgteeacatg
6361
       cagagggaat agcttcagaa agatattttt gatatttggg gggcatgctg agagtgccga
6421
       gttaacctga ttatcccagt ttctgtttgt ggtgggggct tagcgatgga cacctgaatg
6481
       aattatacaa taacttccgt gtgctaccta tttttaaaat tcatttggac aaatcatgtg
6541
       gtgaagaggc tcatatcatt ccagtttgtt tgttttgcaa gtatttgtgt ttatgtcata
       gtcattttgt tatgtaccag tgccagtaaa atgcaatcag taagtattga atgaatgact
6601
6661
       gaattaacac tatttcagat ctagttaaat gccattaggt agacttaaca aattcagctt
6721
       tcctgttttg ctaactaaag catattctca gtgctgtgat gagtgagggg acctggttag
       ttcatggaac ccagaaatta gaagaaatga cttctgtgag gctggtttct gacactatca
6781
6841
       tagaaaagat ctttactttt ctgtgcctca gtttctccWc tactaataca gagataataa
       gaactggatg ccatgaccat ttggtcttct aggaacctag ggaatgctgg cgatatggtt
6901
6961
       catctttgtg aatcttgaga ttacccctqq aqttcctqca tctqcctcaq qqqtatttta
7021
       ttcaaagaga tatggcctag gatgagaata ggaagggagg ttccattttt ctcttgcatc
7081
       taggttagac tcaaaacaag gtcagcttga gattcagcct taagatttct aatgaggaga
7141
       gcagaggttt aacagcactt ccctggggac tgctcagagg ctcctcagga gtgcttggta
7201
       gcatgtggaa ttccctgtcc aaagtaagag cccctgttct tagagcttgg ggtagagag
7261
       atcgagttcc acattgcctg aggctctcta ggccttccag ggtctcaaag aggacttttg
7321
       agttctccca ggcactccat atcagaggct ggaaacaccc ctttcacttg gtagtgctgc
7381
       taggacttga gcagttcagg cagagggcag agaactaaaa tagtttaaca gcgaatctag
       aagctcatct ggggtatatg aaaatggaca cccaatgggt gttcaatagt tttgagcaac
7441
7501
       cagatgagga tctggccatc aggtgctttc tgaaaataac ttctcaatag gtcttttaac
```

FIGURE 5-C

```
7561
       agctgccctc ccttttccat agatataatg tgaaaaaaaa tgtagctgga accacatgaa
7621
       taccataggt tctttagaaa tttccttcaa gttacaagaa tttagtgact taaacaggag
7681
       gattatttct gatggatcca caaaatatgc tgaaatctgt ccctacatac cattgacata
7741
       gagagtgaca gaactcctgt tccttcctgc cacaaaggtg tattctcctg catcgctctg
7801
       tctgqtctca qaqataaaca ttcqqtqqat tcttctYtcc actacatatt tqtqtcqttc
7861
       ttgaacttgg aaattgattt caatgccatc tttataccag tgggcatcaa catcgtcttc
7921
       attgacctca aattcaacaa cagcacgctg tttctcaatg acctgttgat ggaacaacat
7981
       aaaaMaacaa caacaacac aaaaacttga agctctggtt tcctcccagt taatcaattt
8041
       ctaaaactgg tcaatgaatg gcatgtgaaa ccaatatatt ataatgtaat aagttggctg
       attatagcac tetetaattt tteetgeeta gtattggaca aatggtacat aaaettetet
8101
8161
       tgtagagaat tgtgtttaca gctgcatgga ggaaaggagc tgccccaaag agacaattat
8221
       ttcatcctta aatgtttgct tcttatttac taataaggga tataatgatg ctttaccttt
8281
       gggggctttt tattgtctaa aaagttatta cttaatttga tttcatttta tatgaataat
8341
       aactttgtgg gctaggtagg aattattatc ctcattttaa gagtgagaac actgaggttc
8401
       agaattggca aataaatgat ggaagacatc tccaggttat ctgagtcctc attgaagcct
8461
       ttttcattat agtccacagt ctgtaaagcc tggttttctt tggatgagca atatgataaa
8521
       gctgaactca actggtattt ctctagacat gtttcctcca ttatatcatt tgggatggtg
8581
       gacacttatg aggacaagct ctgtaaatgc agccgacagc aagagtgccc agcatccttg
       ccaggaaccc agcacggctt ggacagggct ttctcttaga cttcacagaa agtatttcta gccactaagt tccttgacac ttgcctctcc acagatagaa accttctgag aaaatatcac
8641
8701
8761
       cttgttctaa atttccttaa ttctaattga tgtgtgaacc tcacgattta cattttaatt
8821
       cttttctggt tggtgctgct tggcaagcag ccatttatta gacagtgaaa tttctacagc
8881
       tgctttaatt aacgtattta gacagctgct agggacaccc ttattccctg agtggaaact
8941
       gtgactaaat tgaggtcagc ataagagagt ctaagccaag taagaatgag ctgatttaat
9001
       tctttaaagg atggtggtta gaaaatgtaa aagggaaaca ttaaaatata aaatgataga
9061
       ttatggacta ctgatgattt ttcaaaacat ttagtatgta gacaatacct gaacctcctt
9121
       tttaatactt cqqatqcqaa catctctqcc ttctacaaaq aqttttqcaq ttqacacqtt
9181
       gcctcctgcc accactgtgt acttcccagc atcagacatc cgggtggatg ggatcagaag
9241
       gcggtggaca tatttctcct tctgaatctt tattctatgg atgaaatgga aattcgagtt
9301
       taccgtatgg tgattcagag gaaactggga atYactggaa tgtagcaaga caaaacaact
9361
       gacctgtctg tgatctgcag ttcctggtca tctttcatcc actgtacagt gatgtcaggt
9421
       tcagaaactt cacattcaaa catggctcgc ttcttctcca gtaccttaat gtccttaatg
9481
       tgtttcctaa attctatatg acgaqctgga aaatagcatg tagaaaaatt aacattttta
9541
       acagctttat tgagatataa ttcacatact gtacaatcca ccaatttaaa gtatacaatt
9601
       caatgaattt ccatgtattc atcattgtgt agccatcacc ataattttag aacattctca
9661
       ttccccaaga agaaatcatg taacccttag ccatcacccc aaggactttt ctattgtctc
9721
       ccctqtagac ctaaqcaacc accaatctac atctctatag atttqtqtat cttqqacatt
9781
       tcatataaat qqaatcatac aatatqtqqt ctttqtatqq tctctqqctt ctttcactta
9841
       gcataaagtt ttaaaggttc atccatgttg tagcatatcg tagtgcttcc tttttattgc
9901
       tgaatgatat cccatcgtat ggctatccca cattttattt atccattcat taattgatac
9961
       actaaatttt ataaagcatg tatgacattt tttctatgga tctaatatgt atgaaaccat
10021
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10081
       agcatcccca aagtgaacat tcctgatgtt cagtgagtgt gtgagctttt tggttctcat
10141
       ctggcacttg tcagttgatt tgatttccac accattcttt aaccatttgt aagagatgcc
10201
       ttcatagttc actgtcacct caaaagtaat agtgtctttt tcttcagcgt tgatgtcttt
10261
       cagcatggaa gtaatcatga ttgctgcaaa ggagaaaaga aaaaacaccc aaggagactt
10321
       tacgtaaata tgatgtgggt tataacaggt gcagaataaa aatttggaat gtttttagtg
10381
       cqtctqttqa qqaqattaca qtttaqaqat ataaqctttq ataccttcca tqtactatac
10441
       aggacagtgc caactcacag aggaacagaa agatcaagtg atagacactg aggcatcttt
10501
       ccaggtagcc tttcaatgct actctaactg gaacatttta tccaggtgga gatactagtg
       ctttactcag tgtaaccaca tactagatgt ttcaattaac aattitttt ctttatttt
10561
10621
       10681
       gcagccttgg ccttctgggc ccaagcgatc ttcccacctc agcctcctga gtagctggga
10741
       ctacaagtgt gtgccaccat gcccagctaa ttttttttt tccttttgtc tttgctagag
10801
       gcaggatete attgtattte ccageetggt etcaaaatet tgateteaag tgatteteet
10861
       gccttggcct cccaaagtgc tgggattaca ggcttgagcc accctgccca cccaatcaag
10921
       gatttttgag tggtcagcaa agtgtaggat atagaatatc aatgaatcta ctgaatattt
10981
       gatattttat atatatgtgt atatatatat atatattttt taacttacgg gtgactgtca
11041
       qqqtqqcact qacttqqtca ttqccacaqa caaatqtqta ttctqccqaq tcctctqtqc
11101
       tggtgttcat gatgatcagc tgatggagtt ttccctgcac aactatcttg aacttttcac
       tcatctcaat ttccacacca ttcttcagcc acatggaagg gacattgaag tgggacacct
11161
11221
       cacactcaaa agaggcagtt ttggtctcag gcacctcgat atttttcatg gtttttgtaa
       tatgtaatgc ttggtaaaat caaagagcac ttcagttaat acaatttgtt taaaaagtag
11281
11341
       atgaaaccaa acaaatagat acatggggtt cattaaggaa agggctgtag ggggctgcct
```

FIGURE 5-D

```
11401
        gatacttact ctccacaaac agttttgctt tgcattccaa ttgcccgacc acagctgtgt
11461
       attccccagc atctgagggg gagatgttct gcagcatcag cttgtggact ttcctttctg
11521
       agaccagtct gtgtttgtca cttggcttaa tttccacaYt cttatggaac cattttactg
11581
       gaacagtgtc atgggaaaca ctaacttcaa aggcaacagt ggcattttcc aaggctgtca
11641
       catcctttgg ctttttaatg atcttgacag ctaagaggaa aattggagca attcagtgat
11701
       agggttaact taatggtaac catgggctga ctgcttgaaa agtgtttcta aatcaactta
11761
       ctctccacgt gcagtctggc actggctcca agccttccaa gcctgaagcc ataaacagac
11821
       tcatccacga tggcacagtt tttaatcctc agagagtaaa ttgttccttt gacagagata
11881
        gcatactttt cattggattc cagcacaact ccatttttga tccactggac acctttgaca
11941
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12001
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12061
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12121
       gaatggctac caaacatttt acagttatgc agcacctctg ttttaaaaaa cacctgagat
12181
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12241
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12301
       gtgaaagacg aatggagaat cagtgtctga tttagctgtt tcacagagct ttaacctaag
12361
       aaatggcttt tttgcataaa cgcatttgat aagcaatttt gtaccttgtg gaatgtgtct
12421
       caggaaggtt tagaggatct agaatgactt tatgaaatga aaatttatgg taYccaaaat
12481
       ggccatatcg tttgtctttt aaaacgataa cgatcaagat tgtaatatga tttgaaaagg
12541
       acaaatccta tgttacttgc cttcaacttt gagtttggca gatgttttgg aggtggccac
       cttgtaggta tattctccaa tgtcatctaa tttggtggca gcaatgataa gtctcctttt
12601
12661
       gtggccatca gactcacttc tgatgttgtt agtcagtggt aggtgtttgc catccctcaa
12721
       ccattcgcct ttggaatctg ggttggcaac ttcacattca aacacagctt cctgggattc
       agctacggtc tgatctgtga gtggcttgga gatggcccca cctttggaac aagagatgta
12781
12841
       cagtatgagt cctttaaaca tattcacaca atgggaaaaW ctttgcagaa gtaaatataa
12901
       aatatcaaat ttaagaacat gattttgaaa tcatgaaatg tctatgattg tttttaccca
12961
       tattgagaag gtaccaaaga aatcccttat tctaagtatg cataactgat aattaggaga
13021
       aatactggaa tcagaaaagt tttgtgaaga aaaaataact gttgaattaa taggaaattc
13081
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13141
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13261
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13501
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13561
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13621
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13681
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13741
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13801
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13861
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13921
       atttattgat ttcattaaaa agtaggaaga aaataaaagg cacaaaggct aaagaagcaa
13981
       gaatggctaa aaaaggaaat aattetttag agtaaggaag tttaaataaa geteaataca
       gcaaacacca attgattatc tgtcatttgc aatatattgg aatatacaaa tagaattcca
14041
14101
       gatttcagga gtttatacac tgatattgaa agaggaaatg gggaataaga caagtgcata
14161
       ataaacacta ggaaagaggc acatataaag tgatcctggg gttggatgag gaagagatca
14221
       tatacaaatg gagagattaa ggaaggttta atggagaagg tgacgtttga ggtaggccta
14281
       gaagaacatt tgtaatttag gctggtggga atggtgttgc aagtactatt ggctttggga
14341
       acagcataag cagaggcatg gaagtgggaa actgaaagga attttggggg aaatgaataa
       taatttctta aaataacaat cactcctcgt aagaatttag gttaataaat ataccaacct
14401
14461
       gccacagtaa gttttccaga tgtcatattt tctcccgcgt aaaatgtgta ttttccttca
14521
       tcatctttca tcatatttag aactgtcaat ttatatattt ttccatgtgc ttcaatttta
14581
       tatttagaac tgggcttgat ttccttgtcc ttaaaattcc acaggacatc aattccagag
14641
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14701
       cctctgataa ttttaatttc tggggaaaaa ataaaataat ctcttggtta ttgttacact
14761
       gggaaagtag aatgcttaaa gtaattatta gataggtaga ataatcctta ctttctacag
14821
       agagattaca gttggtttca actctgccaa ctatcagctt Rtaaggtcct tcgtctgaag
14881
       catgagttcg gttaatgact agtcgctgtt tagtaccttt cacaatggcc tgtacacggt
14941
       catcaggett gatttgttca teatttaagt accaettaac agaagteaca teagggaetg
15001
       acaccttaca ttcaagcaca gccttggtgc cttcaatcac attaacatct tttagaggtg
15061
       ttatcacgtc cacacctgca aaatcataca cacacaagat gaatgaattt tgttgaaatt
15121
       gtctgctcct tgaagttctt tatgttgctt aatagtgtaa acataaaatt ttataattag
15181
       gactcactat agacagagac acgcccactg gtggagaggc caagggctgg aatggtgaaa
```

FIGURE 5-E

```
gagtaatttc cagcatcttc cttagtcatg tcttcaatga gcagcatatg agattgtttg
15241
15301
       tctatcacaa tgtgaaccct gtcactgggc tgcacttctt ggccgtcttt catccagacg
15361
       ccttccacac tttccaagga gactttaact tcaagctgaa caatgtcacc ctcacagact
15421
       ttttggtcac taagtccttg taggata'gca atggggcggg ctgtgaaata tggggagaaa
15481
       aagaatgtta tgatcatttt ttatcaataa accataatga tgctcactgc aggctgacag
15541
       gaatgggagg acttacgttt catctttaat ttacaggttg tctttttccc gtcgatgaca
15601
       aagctgtatt ctccctggtc ctccttggtt acatccttga ccgtgaggtt ctgacgtcca
       cgacgagatg taattgtata tttgccattg gatttaagct ccacatcatt atgataccat
15661
15721
       tttccttcta tattttctgg ggatacaatg cactctaatt ctcctgaata tgattctgga
15781
       acttctatgt cctgaagttc tttcacaaac tcaacaactg cacctgaagt gtataacaga
15841
       aagataaatc aattttttg gagaggtatg catctagact taggatagag atgatgtctt
15901
       gtatgtcttt tatctccccc atactatcag gtgtattctt aatatctacc cgctgatggg
15961
       16021
       aagtaaagaa ttatgcttca ataaaaaact taaaagctaa aaatcaagat aatactactt
16081
       taaaaaaatcc aaatggtcaa attgttaaca ttcttaatta cgaacataaa tttatgattc
16141
       tggctatgaa acttatagtc aatttccaaa taattgtttc atgaaagaaa aattgcatag
16201
       ctaattttac cacatgctaa gggtgacttt agagcttagg taaacaatga aatccttcgt
16261
       tgttgaatac cttcaacaat aagtttagca gtcgttttga cattttcatc ttccacaagt
       acacagctgt aatcttcagc atcagacgta tcaatggtca gtatggagag gaagtgaacc
16321
16381
       tttctgtcag agtgcatcct gtatttatct ccctcatgaa cctccatacc atctttatac
16441
       catttcactt tgacaaatgg ttctgaagtt tcacattcaa aggttgccat agtgtctttt
16501
       tccttagcaa caacatcttg taattcctgt gtgaaagtga tcaattgctt ggctacaaga
16561
       aaaaggtggg ggaaaaaggg gagagcacat tatattaaat taaattctca acctgaggaa
       tggggaaaga aaataaaagt aaacacactc atggatattc ttgaatacaa agacaggtcc
16621
16681
       atcaaaggaa agacatgcaa attaccttgg acaagtaaga atgcgtgact ggaggtttct
16741
       ccagctatgt tgatggcttt taccatgatg ctggcagagt cctcagcagt cacatctctt
16801
       atgaccaatt cacaaacatt gtcttcgggc cagtaccagt agatccggtc agaccgttca
16861
       attttgacac catttttgta ccattcacat tcggggtctg gtttccccac gactctgacc
16921
       cggaagtgtg catcagatcc ttggcccact gtttggctct ggattctttc gaagattttt
16981
       ggagcctcca tactaggact tagttcaatc ttgtcaggtt taaaagttgg aatcgtgatt
17041
       ttgccttctt cggcaagagc tttcttttcc tcttcagtta actctttggt ccagtggaga
17101
       agttcatctt ttgtcttcct gaggagttcc tcataggatt catccttctt tcgagacttg
17161
       agetecacag eggtaatgge tteataatag ecetettetg ttetgegett gaatttaetg
17221
       cgcagctctt ccgactcttc aggcactttt tcatgggtaa ttctttcagc ccttttcaac
       ttcacaactt ctttggtttc agtggtgtca acaggtctat ccactttttg tacttcaaac
17281
17341
       tgaagctttc ctggttcatg tacgtgaaac tcaggccttg gttcaggagc tctcctaagg
17401
       acagacctaa aatcttccct ctgttgaatc tcaagcttca ctttatgctc tatcacacct
17461
       tcaggatttt ccgcggtgac cttcacttca cctgtgtcat atgatttgca gtccacgatg
17521
       tccaggtaat ggataccatc atagcgaact ctgaaccttt tgcttttgcg gatgagctgt
17581
       ccattgaggt accagttgac tttgggctga gggtagcctg ttaccctgca gcggaacctt
17641
       gcagtctccc cttcaagtac tctaactggc tctgggtaca agacaatgtc tggcttttgc
17701
       ttttctttct gatctgttgt tacacctgta agtgcacctt catgagccat tctctctaat
17761
       tottcaatto totqtaagco tttcctcccc tcaggcaatt gggattotto cacaagactt
17821
       ttctcatctt taacaataag ggtagcagat gtgtgatctg ttccatattt gttagtggct
17881
       ctgcaagtaa tgataccact gtctctagaa tatgcaacgc cataatcaag gctgcagtac
17941
       ccaaattcat tgatcatacg gagcctgttg gctgcttcaa gtggctttcc atcatggagc
18001
       cactecacea ceategttgg gteaceaatg ggtgttagee tgeatteaaa gtgggeagge
18061
       ccaaagcgct taagtcttaa ggaagtgagt tttttcttga aaaatggttt ctgttgtttc
18121
       tetttgteat agagateace ttetteeeat tgetettgge catategeaa atggagggge
18181
       tocagttctg gggctgcaat ctcctttgct ctatatgtcc cccgtgggat gattaacttt
18241
       ctctctggct caggctctgc aaactcaact tcaacattta ctttgcatct tgtagtgtct
18301
       ctgccagctt tattaatagc agtcgcagta taccaggcag aatcttggct gacagtggaa
18361
       togattttaa gggcagcttc tcccttggtt ccttcaattc tataaaaagt tgggggaggg
18421
       18481
       tattatttcc atacttacct gattttggga tatttatgag gcacaatgat gtcactgttt
18541
       ttcaaccata caatgtcagg gttggggtta cccgtagctc tgactttcat ttcaagtcgg
18601
       gaaccttcct ttatattgac atttttcagt ttttctacaa acatcggttt tacctgatgt
18661
       tccacagctg aaagagaaag gtcatgattt agagggagta aggctgaaat acctgtttat
18721
       aacccaaqtg ataaqaaaat tcatttattt ttattttatc tcattttacc ttccacaqtt
18781
       aaaatcactg aaattgaaga tctgcctgcc ctgttttggg caaccacagt ccattcccca
18841
       gaatcactgg gtgtggcagg gacaataatt agtgattgag taccatcttc tttaatgact
18901
       actttatggg tatagtcatt gacaatttgc tggcctgtga aaatatgttt aaaagaaagt
18961
       agattttaaa atagttttta aaaattgtta gatgcataca taagcttgtt tttgtgtttt
       tatgattcat gagcaaaaac ttatcacgct taccatcatg aaaccagaac gtctctggca
19021
```

FIGURE 5-F

```
taggtctacc aacaaccttt aagtcaaatc tggcagtttg cccttctaaa catttgaaag
19081
19141
       aaacaggttt taacacaaag actggtttat atagtctctc aagttgtgac tcatctgtct
19201
       cctccagcct acgtccaggg gacattcttg caggggacat ccgtgcagga gacatccttg
19261
       caggtgacat ccgtgcagga gacatgcgta taggagacct gctcactgaa cgtggagaga
19321
       qaqatctqca aaacaaaqac acacaatact ttcqtqaqqc ataaaqaaaa ctcaqcaaaa
19381
       caaacttcat tttgtcttat tcattattca tgttatttta gaatttactt cttgcacgta
19441
       ttagaaggca cctcaaactc attcagatct aaaatagaat atattattgt tgcccccaca
19501
       actatgtttt tcctatattc tcaattttag ctggtagtca ttcagtatat ccaggtaccc
19561
       aggeteaaaa atettggaat aateeteaat aetetetttt eettaceaet tggatttaat
19621
       cagtcactag acttttttga tttaactact aaaacatcct aataaatgtt ggttggataa
19681
       gtaaaccaat gaatacattt atggaaaaat aaaaaataca cattctttat ctcagaggag
19741
       gaaaacatag aaatgaattt ggaaacaaaa caaagcaaaa caagactcca tctacacatt
19801
       gcagccagac tgacttggag tttgaatgct ggcaccaccg cttacaggct ggatgaatta
19861
       agacaatttt catagattcc cagggcctca gtgttcctat ttccaaacca ataatagtca
19921
       tctttttatt gcagggctgt tgtataaatt tacatatgta aaaatcaggt gtcaaataag
19981
       agctattgtg atattagcta tagcactagg aaaataaaca gtatgttaca ctgatgaaaa
20041
       ttctttgctc atcttacaca ggggcaagaa ataaaaactt ctggcaattg ttggtgttgc
20101
       caatggtaag tttctgtgcc attttagccc tcgattttct tcttacacaa tagcaatttg
20161
       ctactatttg atgttttgaa aacaatttac atactaaata acccaaatta ttacaagtct
20221
       tacctgattc tgctcactgg ctctagtgtg ggaatgtaag tcggagctcc aagtggtgca
20281
       qcaqqctcca catacaattt ccctqaqcaa attqcatttc ctttaatatt qctqqcaaat
20341
       gcagtgtaga ttccttcatc ttctggaaga acaacaggta tacgcagact agctctgcca
20401
       tettgtagaa agteeatttg gtatetttet ceatgtttga tgegettgee atetttgtae
20461
       caagcaatct gcaaagaata ccatgcatgt atgaataaaa tttacatcaa atagttatat
20521
       tttaaccaat ttgtatcttt actgtggcaa ggagctatga taaatgttta tattttacct
20581
       ttggtaatgg atatccagac atcttgcaat gaaaagtgac acccatcccc tcaagaattc
20641
       tataattctt gattcttRaa tcaaatcctg attcaacagc ttcagattca gaaatgtcaa
20701
       ctgccatctt ttcttctcca tcttcttcaa gaagttcttc taatgtagtc tttattattc
20761
       tatattcaat ttctttaata agtctctctt caaaggaaga aatatggaat tcctatgcaa
20821
       aaagattatg gtctgttaaa aatacatatc cttactgata taaattattt aaggagatgt
20881
       atctgagcta gactgttgaa gtttttagct gggagaagaa tctagaggac tttttggttt
20941
       gtttgtttta atctgcatta tggtcatctt tcccagtgaa tgttgtggca tcttgggtag
21001
       aaaggtattc caaaagcagg agttagattt gggttagagg ttacattagc ttatcacaca
21061
       gatgaagaga tettggcatg aatgaactea getgtgetaa tattggtgtt tteettaata
21121
       tattataagc cctattttta aagtcacatt tatggcctat atgtaatctc tatttctaaa
21181
       ctcacaggtg caacatacca tgaagattaa ggaaacttag caacagtgaa cttggacctt
21241
       ctaatagctg tctaaccccg agctcatcac ttgaaaatga aaatatcaaa taaaaaaagg
21301
       aaagtataat ttatgaaatt gtttggttgg tcattacttt tatactcacc tgatcttcta
21361
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       tttcatactc tttttcatac tcagagtata caaatccagg tgctgtttct ccaactttag
21421
21481
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21541 gtaactcata atcagctaag agttaagaac atcagttaat ttttaatgct cttattagaa
21601
       aacagtcata ccactatgca ttcaggtaaa ctctacactg gggaaagttg ataaccaaaa
21661
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21721
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21781
       gcagtcagtt ttggggggat ctaccacgga ggacttccta atttgctgtg tgtcttttaa
21841
       caattcattt accttcctga atattgagtg ctttatctgc taaatgaaga taatattgta
21901
       atttcctcta agggatactg tgtaggtcaa gtgaaacaga gtgtgagcca gttcactgta
21961
       aatgtgaaca gtctagcatg aaagctgtta catttgtttt caagttataa acattgaaaa
22021
       tcctgacttc caggttttct ttaagatatc aggagctcta gcaacactga gcctggtaac
22081
       agcctggtgc atgcctggca acaacacagc tactgtctct ttgaggcagg gcacctactc
22141
       tocagtttgc tactgttttc attgagctca ctgttacctg cctgggcctg gaaggcaacY
22201
       ggatttagaa tctctgcatt ttcagaggca tgatatgcct agaaacaaat acaacaaaaa
22261
       gaaactattg ctagaacctc agaagtttaa tgacagtata gtttttgagg ccatgtggtc
22321
       taaaacattt tccatacaac tgaggcaaag acactggggc aaagtatcag aaccagtaag
22381
       tggcaacagg tttttcagca aacggacagc actgctatct ccttgtattt cagttcttat
22441
       catgcacata gaaactggag ttgcacttac cttcttcaag caaggaagca gatgcagaag
22501
       tttctccatg cttattgcga acaacaatag tgtattctcc agcatcatca gcaaaagtca
22561
       tagaaatcac cagcttgcat tcaccggttt gtttgttgta actcactttg tatctttatg
22621
       taaatgtaca aaatttaaaa atcagttatc aacaactctt ctgtgggtaa aataattgga
22681
       cttatctgtg agtggatctg tggtataaaa ttcaatgacc ctaaacatat gactaagctc
22741
       cacaatagat tataagattg ctgaaaattg agaaaaatgc aagaacatga gtaattaggg
22801
       ccaaataagt taaaatattc attttaaaga atatttattg ctagaatcag tcatgaaatt
22861
       aagtggtttt cagtgtttat gttagcaaat gatcaggtca cttaaacaac aggtattttc
```

FIGURE 5-G

```
22921
       tctttqttcq ttattttct cattatttca ttcaqaqatc aaatqaataa ttaaaacaat
22981
       aaattccttc aaatatttca gtattaactc tctggtacat tatatttatt attatgaagg
23041
       tacggcacct acatttttag attaccaggt tgctcttttt atcttaaatt gcaaaatatt
23101
       cagaqctaaa ttttatattg aattgaagaa aaattactag catagatttt tgtgcataac
23161
       tagctttctt cttcattaca tggctattct tctatctttt agtcacttag ttattacatg
23221
       tttttattga aaattgtctc aaatcttttc tggaagtgtg tgtgtgtgt tgtgtgtgt
23281
       ggtgtgtttg tgtgaaaatc catattttct ctactttcac aaactcaatg aattaaacta
23341
       taatgtaaag aaatatatct tccatccact tttgtcacat agctttattt cttaggaaga
23401
       ctttgcacaa aaaaaatgta aaaatacctc aaaacaaact aagaaggctc cacaatgaaa
       gagcctatgc tcagggtcgg tggggtgagt aaattctact ctaggcttca tgcacgtatt
23461
23521
       atacaagtca cagagaactc tatattcagc catcaaaata cctgtatcca gtggttagag
23581
       gaacaccaga ttttttccag tatacatggg gctttgggtt gccgccaact tggcatccaa
23641
       acaccacgct cccaccttcc accagtttct ggaccactgg ttttgtaata aagtaaggcg
23701
       cggcaggttc tccaggccct gcttgttcct ctgtgaggct agtatcagtc ataaccacat
23761
       ctcttgactc aacaaagctg gaaagagaat tcccctcata ttagcttccg ggttgcaatt
23821
       tqccaatact qqtqqqctq aaaqtcaaaa tqqtactaqa acaqctacta attaqcaaaa
23881
       tattttaccg tttctcttct gtagtaaatt tctcagtcac ggctgtggtt tccttttcaa
23941
       attcttctga cactaaaaga agacaaaagt ttctcattga gatgagatgt ttagtgaccc
24001
       ctgcttagca ctgacagtta aattgaccat ataatctccc cccaagttcc aaaaagggac
24061
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       atgtgcatta ggactgtggg agggtggcca ctaaccctgc acagccagat agcaggatgt
24121
24181
       gctgacggtt ccagcctcat ttacagcact gcaagtaaat cgcccgctgt cttccgcaaa
24241
       tgcttcgcga atcataagac gagcaattcc actctggaag gttatctgga agtcaatgga
24301
       actttcgatt tggtagtctt ccctgtacca tgtcactgtc ggggatgggt atccagagat
       gtggcactcc aaggtgacag attcaccttc tatgacagtc acatttttta agccctgaag
24361
24421
       agaggagaaa aaataaataa tgatacgtgt gcatattcat taatcacttc tgttttgtaa
24481
       caaatgtaga gtttgaactt atgcatttca actgccacaa aatgKccttt taatcaggac
24541
       tccagaaata gtagtagaga aactaatatt tatataatat actaatatat tagtaaagag
24601
       ctgtaaggct caatagcaaa tgctacctat tcaacaaagc tttgccatgg tatcaccaac
24661
       tggaatgaat ctatgcctcc catggattct ccttctgttg tgatgtttat caccttatat
24721
       attttattat gcttgtttgt gtacattttc tctgatggca aagaaaatat ttcaaagagg
24781
       gatggattgg tctttatgtc tgcacagctc ctgcaataat gccttctgca tattagaagc
24841
       tcattaaatc ttttgaatcc atgaatgatg taccacatag aattcccttc ttccttgcca
24901
       aatatggtca aatatggtct tccagaccaa atacggtctt aaaatgagca tctgtaagct
24961
       cactaatgtc atttttgtat taatttgaga aactgatctt tgcaaacgtg tattaaaatg
25021
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25081
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25141
25201
       ctcatgcaac attatataat tataaaaata taaaaaataat tataaaaata atttgagaaa
25261
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25321
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25381
25441
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25501
       cacctcaacg ccagcttcac tcttgtaagt atctggtgtg tcagcgaagg ggaactgtgg
25561
       caagggtgtg ggctctgccc ttactctagt ctcactgggc ttcacagtag gagccttcac
25621
       cgatttggtg atcttctgag cagaagatgt ggctgacaac tctttttgta atgtggcaat
25681
       agcactaccg gctattgatg cctacatgga aacagagtca gaaaataaag tcatttaacc
25741
       atcctccgat ggctagccct cttggactga gtctgagcct attttctata aggtctgttc
25801
       tttaatgttc tcattagcac tcattatcac acagttaatg aaaagtcatt tagagataag
       ccaattataa agctccttgt catgcctgtt agtttgtaaa acaaatttta aaatatcttt
25861
25921
       tttaaagagt tgtattcaga actccttatt ttacagcttt tatcataaaa ggacaggatc
       ttctaaagct tagtcacqaa ttttcactta accattccga tgaatgccac ttttgaaaat
25981
26041
       accacagtgg gagattcaaa attaagaaat tattgaaatt gttggtaaat gcctaagaac
26101
       tactttgcaa tagtacattt gggttttagc cacaaatcta tgtgaaaggt aaacatgaag
26161
       acattcagaa aaaatatttt aaaggtttcc ttactgcttt tattctgttg tggtctatgg
       ttatttgttt tgtaatttgg gactaaatca aatataggca ttatatgtaa cttacagttc
26221
26281
       tttgaaggca tagaaggttt gggttctatt tcttggatgt gtataataac aatagtgact
26341
       aatatcaagg atttattaca tgctgacaac tgMaggtttt tatgtccttt ttacttgcat
26401
       tttacatgta tgcttacttt ctcctgatga cagagattat aagggagaag atagggcact
26461
       aatccagage tatttgatte cacaatecaa ceegaceace atacagtace acetetecat
26521
       cttgctatat tgagtatata aatatatgat ttctcaatgt ctgtctttat tattgaaaca
26581
       cattcacagt taagttactc tgaaatgtct cacagcataa gtaaaactat gctgtgtaac
26641
       acactacctt tcacaaaatc attaqaacaa tagtaatcaa aacaattgag tttgagctgt
       ccctgaaatg tgaactagag agaagcctgt gtggatttgt ctctcctcag aggtataaga
26701
```

FIGURE 5-H

```
26761
       taaccacttg tgactctagg ctcactcccc tgggcgagtt tcagaaacca aatctttagg
26821
       gtgtctgggc ccactgtgaa tgcaaacaca cgcacacaca catcaccaaa aaagaatcct
26881
       ccattggcct accccagaga tgctctgttt cacaggttag atacttattt cctttaaaca
       tttctgtatc atgctctgta acttcttacc tcatatccat gttctgtctt aggaacagaa
26941
27001
       atttttqaaa caqtaaaqtq aqqqctaqct qtqcqqqqqc qtttatccac atqqactaat
27061
       ctttccgttg ttagatctgt agttttcttg atctgcattg aaatgaaact cagtgatacc
27121
       attgatcacc agatgaccac agcagtgagg cttgctttac catgaacaag gtgaaaaatc
       agcaggtata gactcacctg tgatgatatg tgcattccct tttgatcagt agttttgata
27181
27241
       tgagtctcag aaggagcctg gattactcta ggcttgactg ctttagggac aacgtggggt
       tctgaggctg gacgttgggg aggctcagct acctttgcgg cggaaatgcg ttccttatat
27301
27361
       ccgtactcca aagtggtctg ctgagcatag gattcttcaa gatgcccagg ctctctgggc
27421
       tctctgactc gggcctggtc tactgcagca acaactgttg ctacagcttc agcctttttt
27481
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27541
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FIGURE 5-I

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FIGURE 5-J

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FIGURE 5-K

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38281
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38341
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38401
       gttattaatg aactttcaaa actgctaaga tggtcaaaat gctccatggg atcagggaca
38461
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38521
       ctcaagaaat tgcatttggc ttgtgttgtg atttcatggt gtgcaaactt ggatttagcc
38581
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38641
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       aattggaaaa catctagcat ttttttcac atgtttattg gacttttaca ttgcctctta
38701
38761
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38821
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38881
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38941
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39001
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39061
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39121
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39181
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39241
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39301
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39361
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39421
39481
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39541
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39721
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39841
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39901
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39961
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40021
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40801
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40861
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40921
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40981
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41041
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41101
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41161
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       acaattgtct ttgtcttttt agcaggtact tcttcttcac ctgtgggaag ggaaagatga
41221
41281
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41521
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41581
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41701
       cagetetete ceettetete tgtteeteaa eeteeageae gtaeettgaa eeagtaatte
41761
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41881
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41941
       tocagteact eteacttgga gteteacttg getteettgt eteacggtea tgetetgeag
42001
       tcgttgaacg aagttgggtg gtgctgtctc agctgcgggg acaagagaac aaagtcaaga
42061
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FIGURE 5-L

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42121
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42241
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42301
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42361
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42421
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42481
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42541
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42961
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43201
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43561
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43981
       qcctaqqqct ctatctqatq caatttaata qacaacatta aaatcatqaa aqqqacttat
44041
       aaaaaatgaag aaccaaggaa aatttgaaat aaagagtgat tgttgtcctc tttgagagca
44101
       agtgaagaac aaaagcagca aactgatctc cagtttctgc ctgacaagcc caggaggcat
44161
       gccctcctcc ctcctctqtq qttacaqqqa cactqtcttc ttqqactctt ctqctttcac
44221
       aagtgcaatc agtaaaaaca ttgtaacatg gacaagcaat ttctcataag agactaatcc
44281
       aaacctagtc ttccagaaca acatggatca ttggaattgc aggtagaaag ccaaattctc
44341
       tttatctgcc ataaattgta gagccaagaa ctacatgtcc atggtttgat gttttaaata
44401
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44461
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44521
       agtctatttt gttgtttata cattagccca tctcccacta tggccaatta aatagtttat
44581
       tggactgatt tatgggtatt ggatattttc agtagtgtct ttgtaataat ttatttgcat
44641
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44701
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44761
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44821
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44881
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44941
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45001
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45061
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45121
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45181
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45361
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       ctggcttcta ttgggcttga gttcttggct tccagtctgg ctctgcagct gaqcccaaat
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45661
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45721
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45781
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45841
       gttaacttac tggagaggag gcaaaggaaa aaaaaacaaa agtgtgaatg tgtgagctta
45901
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FIGURE 5-M

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46081
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       gtcttctctt ttgtggcttg aacagttttg catagttcat cattgagttg acttaaagcc
46141
46201
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46261
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46321
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46441
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46561
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46621
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46681
       46741
       cttagtaagt gaaaattatt ttaaaaattt tccttctccc caatattttt cgttcactct
46801
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46861
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46981
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       tagtgaacag gccaaagttt attatagttc tgaaagaaaa atgctggctt gagttcttaa
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47581
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47641
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47701
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47761
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47821
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47941
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48781
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48841
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48901
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48961
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49081
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49201
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49261
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49561
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49681
       aagatcttta taatgactca gctgagagat ttgtgaaact ctacttagag ggaggaaaat
49741
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FIGURE 5-N

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49981
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50041
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50101
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50401
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50461
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50521
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51481
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52681
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53521
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53581
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FIGURE 5-0

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53881
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56461
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       tactcttcca tttaaaatga ggaagcttta gcaacagttt cacctttggc aaattctttg
56821
       tcaaaatgaa ggaacactta tcaYctgtaa tgtgaatctt tgtctccctc catctctgct
56881
       gatagattgt gatttgggga cacttgcagt atagtcgtcc ttcagtatcc ttgtgggatt
56941
       ggctccagga ccccctaacc cccagcggat atcaaaatat gtggatgctc aagtcgctta
57001
       tataaaatag catagtattt gcatttaaac tatgcagatc ttcacatatg ctttaaatca
57061
       tctctagatt ccttataata cctaatacaa tgtaagtgct atgtaaatag ttatgttgta
57121
       ttttttattt gtatttttt tattttgggg tttttctttt ttcagtattt gtgatatgca
57181
       ttttgttgaa ttcatggatg cagaacatgt gagtagggag aggcaactgt attgttaacc
57241
       catcagagac tacattcatt agaggttagt tgagtaacaa ctgttgtaag agtatatgta
57301
       agtttaaaaa acagtaagct ttgaaaaaga taaaagtaag tcctggcatc cagaagctgg
57361
       cctttgtaat aaatgatgag ccaatattga tgcattatta ctaaagttca taatatacat
57421
       tagggttcac tgttgtttgg acattctgtg ggtttcgatt gatgtttaat gacatgtatc
```

FIGURE 5-P

```
57481
       caccattgca gtatcataca cagtagtttc aatgccctaa acatcctctg tgctccactt
57541
       gttcttcatc ttcttccttc tctccctaaa gcctggcaat cactggtttc ttattgtctc
57601
       tgtactgttt tcttttcag aataccatat agttggagtc atacagtatg tagccttttc
57661
       agattaactt ctttcactta qcaatatqca tttaaqattc cttaqtqtct ttccatqcct
57721
       tagtcgtgta cttcttattg cctaagattc tactgtatgt atgtatctca gtttgtttat
57781
       ccattcacct attaaaggac atcttgtttg cttccaagtt ttcgccatta tgaataaagc
57841
       tgctataaac atctgcatgc aggttttgtg tggacacaag ttttcagctc atttgggtaa
57901
       atgccaagga aactaattcc tggattgtat gacaagagta tgttcagttt tgYaagaaac
57961
       tgccgaactg tcttccaaag tggctctgcc gttttgcgtt cccaccaaca gtgagtgaga
58021
       gttcctggtg cttcacatcc tcactagcat ttggctttgt cagtgctttg gattttagcc
58081
       attctaatag gtatgtattc tgacccattt tttaccataa taaaataagt actttgggat
58141
       aattagggag tattctacaa taagaagaga atgagggaaa taaaacaata actttaaacg
58201
       tggctcctgg gtggtagacc aggctcattc cctgagtaaa tcattggttt tcatattcta
58261
       gctttctagg atgagattaa aatctgcacc taagagaaat aaggaatgag aactttgggt
58321
       tactcattaa ggttatatct gcacattaga tttctaatgt acttataatt ttacagtaat
58381
       agctctaaaa gtagaaagga caacaaaata tgtaatattc acatgggtta tggatacttc
58441
       cacatatgag tatttatact tagaaacagg ataacctcca caaaagagtt ttagttcctg
58501
       cccctttacc taagtggaca actggttctt gctagtactt tttcatactt ctagtacttt
58561
       tgtttcctgt gttgtatttt tgggcaaaaa cttttgtgtt tagcttctgt ctgaaatgtg
58621
       ccacatgttt atttctttaa gagaaaaggg tgcatattgt cttgtgaata aatatttcat
58681
       tcatttatgt gttgtatacc tgagaacatg gcctcaaata taagaattta gctgaaacta
58741
       ctgttggttt aggacagaag tacttcctag aatcagaaag actcatgctc tttttctgtg
58801
       gataatatag aaaaacatag agttatgaaa cacaatatat tcttctgaaa ataaagacaa
58861
       aaccacatga cctacttcag tatctccagg taccacttag aagtcatctt tgaaccaagt
58921
       gacacatggt cotgatotto tggacactgt gcagtgtgga agcagatoto atcottoctq
58981
       gaggttgaca ggtctaacac tttctaggaa cgttagaatt ttgcttcata ctaaaaggaa
59041
       aaggaaattt gaagttgcta agatacacat gtgtaatatt ttcgttctct ttttctttat
59101
       59161
       ctcccttctt tcaatggagt ctcattctgt tgcctaggct ggagtgcagt ggcacaatct
59221
       ccactcactg caacctgttc ctcccagatt caagtgattc tcctgcctca gcctcctgag
59281
       tagctgggat tacaggcatc cgccaccatg cctgcctaat ttttgtattt ttagtagaga
59341
       cgagatttca ctatgttggc caggctggtc ccaaactcct gaccttaggt gatccactcc
59401
       cttcagtctc ccaaagtgct gggattacag gcgtgagcca ccgcacctgg cccacatatg
59461
       caatattttc aatgtgttcg ttttcagaag tctttctaaa caatgtcaaa tttcttttta
59521
       ctgcattctt accacctcct aatgtctagc aatgatcaat aattcccctg actgaaaaac
59581
       caaaagcaaa agtaaaaaca aaaacaaaac ccataaaggt gactttttaa aattttattt
59641
       taagttccag gatacatgtg caggatgtgc aggtttgtta cataggtaaa catgtgccat
59701
       ggtggtttgc tgcacctatt aacccatcac ctaagtatta ttccccacat gcattagcta
59761
       ttcatcctga tgctctccct cccccaaccc tcaacaggcc ccaaggtgtg tagttcccct
59821
       ccetqtqtcc atctqttctc attqtttaac taccacttat aaqtqaqaac atqtqqtqtt
59881
       tggttttctg ttcctgtgtt agtttcctga agataatggc ttctagttcc atccatgtcc
       ctgcaaagga catgatctca ttccttttta tggctgcata gcattccatg gtgtatatgt
59941
60001
       accacatttt ctttatccag tctatcattg atgggtgttt gggttgattt catgtttttg
60061
       ctattgtaaa tagtgctgca atgaacatac atgggcatgt atctttataa cagaatgatt
60121
       tatattettt tgggtatata cecagtaatg ggattgetgg gteaaaeggt atttetggtt
60181
       ctagatcttt gaggaatcac cacactgtct tccacaattg ttgaactaat ttacactccc
60241
       caaaacagtg taaaagcatt tgtaaaggcg acttttatca agactcttga atagagtcat
60301
       cttgtgaaat tccactttcc tcacatataa gggagaaaga agggcagaca gaaggaggaa
60361
       cttgttctta agctactaaa ttaccaagct ttactgggga tctgtctgag taagagtttc
60421
       caaagtaaaa aagctacatt cttggagact attctagaga cagatttaaa cagaagtaat
60481
       aaagacgaca tttggaacta cgcatgtagc cattgattgc aagtgtactt aggggccttt
60541
       ttgccaaaaa atgataacct acacaacttt ttttgctgtc aaattccaga atatagactt
60601
       cagtotqttq aattttqcaq qottttattt qatacattta attqaacatc atcattatca
60661
       ttttgctgat atgtcagggc agtggtatgt caggaatttt agctctcata acaaatttat
60721
       tcaactactt aaaactattt agtaatctac ccaggataac taatccattt aagaagaaca
60781
       aaaataagaa aaagtttcaa taattaagaa acagtaaaat agctttgtga agagcacatt
60841
       atttgctgga ttttattttc tRaattgtac tgacaaaaca ccagtgtgta atcttgacca
       agettatget atettgttte ettaaatagt ggtteteaac cagggatgat tttetgecag
60901
60961
       gggatatttg acaatatttg gagacatcat ggttgttaca tctgagggtg gaggtgctaa
61021
       tgacatctag tgggtagaac ccataaatgc tgctaaacat cctacagtgt ataggacaac
61081
       ccccaaaca cacagaatta tctagtccca aatgtcaacc ttgtatcaag gttgaaaaat
61141
       cctgctttag agaaatacac cacaaatacc acattttcct catatttaaa taattttaat
61201
       acatatacag atatctcatg aaacattcat ctcaaaacct aagcaaaata cagtttttta
61261
       tatagaacat tttctggtca gtgtacacac aagttgaatg gtttttgaaa agcattctac
```

FIGURE 5-Q

```
tgcattaaag gacataaata aataaatata tttattaagc ttctctcact aagtaaagca
61381
       caccactgat acttcctcct gcttatctga tacataaaag gacattaagc catcatttcc
61441
       tgcagtttat gttccataac acggcagttg attagaaaga tgtagttact tctgtttgaa
61501
       aatqtaqctq ctqctctqcc ctctqqctca ctttqaaaat ctqtqqttct qaaaqctcaa
61561
       ggtactattt ttactcttcg tatttggctc tgacctgtga gctacRttcc tgcttctcat
61621
       ttcccttggt ttggccacac cggtggagag tggggctgtg gtgtgttttt ttaaggttgg
61681
       gggagggtt gtagttactc agacaagatt ctgataagtt cacgctcagg gtggttttga
61741
       ctgaaaacta gaatttataa ttttacaaat cggattctcc ttttagatat gtatttttat
61801
       taaacatatt atatcttccc atgaaaacag aaacatggca aataataact gaatattgtt
61861
       gggcatttaa aaatattttt attgaggctc aagcttaatt tggaagaaaa ttgtqaacta
61921
       tattctattt gtaattactt tacatgcaat aaagtaattt ttccctgaga atgagatcta
61981
       aagttttcag attaaattga aatgaaagaa tttttttaaa aagttattaa ttcatatgag
62041
       ctgttctgaa gaaagcatta gaaatgtgtt aaagcttatt tcaaaaggga tcataataga
62101
       aaaataattt gacttaatgt ctatataata aaggctaaga tttttaaatt gcctgaaact
62161
       ggtactgagc tcttcattaa agcaggtacc atgtgcgtgg acattttgat agcccttttt
62221
       agagtgctac agtcttataa gggtatctat ctatgaagtt cctcaaggtt ccacatgtta
62281
       aagatgtcaa agtgactttt tattttctat gttctattat accactatgc atttttataa
62341
       tactcactgg acacaaaaca aatgttaaac taggtttgca tttgtctaga gaatgacaag
62401
       atctatgctg actttctttt ttctaacata ggaataaatt tttcatcaac tagctatatt
       cccagttatt tcatcactca acaaagccac aactgcatga aagggcttta agcctgggac
62461
62521
       ttttgggggt gaataagagc ctgattattt gtttgggtaY accaagtttt tagtgaacca
62581
       tatttgaagt cctacaatca tatatattt tatatttttt ctttattgaa taaatagaat
62641
       ttgttatgac tgccaaaaag tacactattc tgagcaaaca aaattattac cttatctgtc
62701
       ttctgcttcc caggaaattt cctttaaatt ttgttctaaa ccttgactgt tctcttgatc
62761
       atttggcccc aaacaccaag tgcttggcaa tatcacctgc ctgttccaat gagaaaatca
       agaacacact gtgtgtttaa taccccttag agatcagtga gagctagacg cacatttaga
62821
62881
       aatggtctat tttgcaccat aattcacagg caaggaacat gagggtcaaa gattttagtg
62941
       gcctaaatcc tcagagttct tctgtagcaa agctaggatt agaatttagg tttttacaca
63001
       tgaaaaaatg ctcatcatca ctggccatca gagaaatgca aatcaaaacc acaatgagat
63061
       accatctcac accagttaga atggcaatca ttaaaaagtt aggaaacaac aggtgctgga
63121
       gaggatgtgg agaaatagga acacttttac actgttggtg ggactgtaaa ctagttcaac
63181
       cattgtggaa gactgtggtg attcctcaag gatctagaac tagaaatacc atttgaccca
63241
       gccatcccat tactgggtat atacccaaag gactataaat catgctgcta taaagacaca
63301
       tgcacacgta tgtttattgt ggcactattc acaatagcaa agacttggaa ccagcccaaa
63361
       tgtccatcaa tgatagactg gattaagaaa atgtggcaca tatacaacat ggaatactat
63421
       gcagccataa aaaatgatga gttcatgtcc tttgtaggga catggatgaa gctggaaacc
63481
       atcattctca gcaaactatc gcaaggacaa aaaaccaaac accgcatgtt ctcactcata
63541
       ggtgggaatt gaacaatgag aacacttgga cacaggaagg ggaacatcac acaccggggc
63601
       ctgttgtggg gtggggggag tggggaggga tagcattagg agatatacct aatgtaaatg
63661
       acgagttaat gggtgcagca cagcagcatg gcacatgtat acacatgtaa caaacctgca
63721
       63781
       aaaaaaaaa agaattttgg totttagoto otocaaatag taacatttta agaggagtaa
63841
       tacagaatac tccaattctt taaaacaagt gctcccttct ctatgaatac aagattgaga
63901
       atgggctcaa aagcatgaca ttttataaaa ttagtgttcc actattttaa tgagcaatat
63961
       ttaggatttc aatttacttg cataaaggta catgataacc tcaacaaaaa gcctacattt
64021
       acccaattaa aaaggattca gatggcccta tgtttctcag ggcaacatca atggagggcc
64081
       gtttatctca tctatgttat ctctaaatgg aaatgtttat atcagacata taaaggcata
64141
       tccatcatta gaaatttaaa acaaaagtga agattgtaat ttattttcag taacatgtac
64201
       agccagtgtc atataattta aatatcaatt atactctgat ttcaaatatg tctgttaatg
64261
       ttattaaaat aaccatgtaa tctttgcact gtatatggag tctgtttgag ccaacctgca
64321
       aagtttcaga ttggtggaaa aagaaatatt tctccatgtg tccacatatg aaaaggaata
64381
       tagcacaatg agaagccagt acatttgact gcagaaaact gtcttaactt gctttgatta
64441
       ctatccttcc ataaaacaaa ccactactct gcaatgggat gtttaattgg tgtacgttaa
64501
       tggtggttaa atattaacca ccatgattat tttttctctg agttggagaa atttcattta
64561
       ttaagtgcat tttgagtcaa tagttatata agaataagca tcctctatct gcaaaagttt
64621
       gaatgagata atcagattaa atttattacc tttagaggaa cttaatgtca aattatactt
64681
       taaggaattc ccagtaaagc taagaaacag gcaagcaaat tctgttgttt ccaggtattt
64741
       agtagactta atatacattt tattattagc atataaacca ttagcaataa aaaagaaata
64801
       aacacacaaa acatttqttc ccqcaqtaat catqtatqct ttaqtaacct taaqatatqa
64861
       gctagaaaaa ttcatcttta aagatctaga ttcagtactt ttatggaagc ttgaaatacc
64921
       ataactaatg gattgaaaaa accaacagct gcttctcaac taagatttat gatgttatga
64981
       cgttgttatt acattaaaat taaagtaact tcaaagttct atttagaaat aattcttttt
65041
       ggtttgctat caatgaagaa tttaaatgaa tttatatYtg aggttgctat atgtgtacac
65101
       ctatcttaac aatgttttcc ccccttccaa cagctatctg gaaatcttgt ttgaMatata
```

FIGURE 5-R

65161	cagattttta	attatctatt	ttaaaactgg	aattgtgctg	agtcttttat	ccagagcatg
65221	catataaqta	actctctgta	tgataccact	gttaaaatga	gagaagetta	tttcttcatc
65281	aaatctaggc	cataagttgc	taatggcact	ggcgccatta	gcatgaggtg	tttttctaac
65341	ctgatcacat	catatatcac	ctgggcattt	tatgtattac	tgaattcata	caagaactca
65401	tacadadaaa	aacacacaca	cacacacaca	cacacacaca	tatancaaan	attcaaatct
				-		
65461	cttgaaatag	tttgtattca	ttcacaatga	tccttatggc	atgtaacaca	ctctgctata
65521	taattttgat	taagttaacc	aacaatttct	tatatttaaa	gaaatggtat	aggettttet
65581	_	ttctctacga				
		-		-	_	-
65641	atggattaga	gtcagagcac	agaggaatga	aactcatgtg	ccaagaaaaa	gtcagctgtg
65701	gccaggcaca	gtggctcacg	ccagcatttt	gggaggctga	ggcaggcgga	tcacctgagg
65761		gggaccagcc	_			
65821	aaattagcca	gcatggtggt	gtgcacctgt	gccagctact	caggaggctg	aggcagaaga
65881	atcgcttgaa	cccgggaggc	agaggtttca	gtgagccaag	atcacqccac	tgcactccag
65941		aagagtgaga			-	
			-			
66001	ctgcaactga	ggaccagccc	ctgtacctta	gactgtgctc	ctgacttgtc	caggaacatc
66061	ctgttaaacc	tgggccatct	ttcatggtgt	tcataatcca	ttttgggttc	tcaaagtaaa
66121	trantatttn	tgcaattata	caatntatto	acataggttt	gaacaaaacc	tataataggt
		-			-	
66181	_	tccatttata				-
66241	tactatattt	acaaggcctt	cgataaaata	caagtttaat	acttggcttt	tgtggtacat
66301	canttanttt	tcttttaagt	aataaaqtac	aatoccataa	taatttagaa	tattgacata
66361	-	aattactctc				
66421	aacatttaga	caatacaaaa	caattagttg	cattgaaaag	tttccagtta	actaaaagtg
66481	ccaaaatagc	cgtttgtatt	ttatcattta	attaattaac	aaactaaaat	atgactttat
66541	-	ttttaaaggt				-
66601	aagaaatctt	agaaataata	ctagcagcca	gggcccatcc	ttgctgatag	aaaagtacat
66661	acccacagta	gctacattca	ttcctgcagc	acagcagatg	accaactggt	aaatcatcca
66721	ctccaggatg	tgatgtcaga	uuccaaaauu	acttctttta	ttttattta	atcatottat
					-	_
66781	tattggagaa	agcccagctc	agcaatcctg	taattacaat	ttccttctat	tttttctctc
66841	ttgatctgtt	gataacgaca	atggtagtta	atgatcaaat	ttgatttatg	tttcacatca
66901	agtattccct	cattctgttg	aggatgatct	totocaaqta	atttacctct	cccaaatctq
66961		cccaccccc				
67021	acatgtcgca	actagatttc	aggtttccat	aatgtctgca	accaacatat	ggaaaagggg
67081	caatttctta	cagcctgcct	ttgccatggt	ctctggagat	gcctgatcac	tgcactgaca
67141		ttttcttgag				
	-					_
67201	-	gttccaagag				-
67261	tgatatctgt	aaatcaaatt	agttttcttt	cttttaaaat	cttagtaact	tttatgtttt
67321	cttgtcatat	tcactagtta	gtgtttccag	tcaacattga	ataagagtgg	taagagagga
67381		tatgatgtta				
	-			_		
67441	gtttcctctg	ttactagttt	tctgacagtt	tttaaaaatt	atcatgaata	cacattagat
67501	ttttqtcaaa	tgttatttct	gcatcaattg	acataattac	attattttc	ttcttttgcc
67561	tatagatata	gtggattcac	trattrattt	gtgaatttg	aaagagccgt	atatacctad
67621						
-		acgtcttgtg				-
67681	gttgtgttga	ggatttttgt	aattatattc	atgagagata	ttggttttta	gttttcattt
67741	cttgtaatac	ctttacctgg	ttttactatt	agcataattc	tgacccaaga	gaataagttt
67801		ctctctgctt				
67861		gtttggtaat				
67921	ggaaagttgt	taattattgg	ttcaatatct	ctaacagata	aagggctttt	caggttttct
67981	atttctqctt	gtgtgagttt	taataattta	tctttcaagg	aattgatcta	gttcatttca
		ttgtgagctt				
68041	-				-	
68101	tctcttttgg	ttatcctggc	tagaagtata	tcaattttat	tgatctgctc	agagaacaag
68161	cttttaatct	cattgatttt	ctctattatt	ttcctatttt	aaatgtcatt	gatttacact
68221		agttttcttt				
68281	agtttcctaa	ggtgacagct	taggatgatt	ttagattttt	ttctttctaa	tatatgcatt
68341	taatqctata	cattttcctc	tacacactat	ttttctacat	cccacagatt	ttgataagtt
68401		tttcatattt				
68461		ttagaagtgt				
68521		cttgtttcat				
68581	tcttttaaat	ttttaatgga	tgatatatag	ccaagaatgt	ggtctatctt	ggaaaatgct
68641						
		atgagaagaa				
68701		agtagattga				
68761	tagtaatccc	attttttgaa	cttctctatt	ctccttcctt	atattgtata	tattcttact
68821		gtctaaagac				
68881		tctagaactc				
68941	agatgaaaag	ttactgatgg	actgaaatgt	actagggtga	tcccttcaaa	tcagcaagga

FIGURE 5-S

69001	agctgaggta	ttctagcaca	ccccaggagt	gctggtttga	aaggctggct	ggtgtctagc
69061	aatggtctct	gggaatttta	ttaccagaga	cttgtattgg	ttcttctaaa	acatggtcat
69121	tatagtaget	tcctagget	gccataacaa	accaccacaa	agaggatage	ttaaaacaac
69181			ttcagaaggc			
69241	_		agggctttag			-
69301			tgcaccttgg			
69361	cctctgttgt	cacgtgtcat	gtactgcctc	ctccctgtgt	gtctcctctg	tgtctctgtg
69421	tctgccatgg	cctcccttta	aagacaccag	gaaatggatt	tagggtccac	cttgacacta
69481	ctgaacccgg	tagagtcctc	ttactgggta	acaaaaattg	tcatqtaqaa	acattttatt
69541			gagttcccta	-		
69601			gccaaagctg			
69661			tacatatccc			
69721			tagaccccat			
69781						
			ctactaaccc			
69841			tgaataaaaa			
69901			gaccctgcag			
69961			tattcccctt			
70021	cttgtctgca	tttccagctg	actctgtttt	ccaacagctt	gtttgtgtgt	gggtgtgcat
70081	aatacttatt	acaaagcgag	gtggctgtct	gccatcatta	gcataatatg	cgttggagac
70141	aatttgccat	ggataaagta	ggtcccttta	tatttcactg	attttttat	actcaaaaga
70201	ttttattgca	tgtttttta	aaatgcatac	ataaqataaa	aataccattt	tgtagatgct
70261			aaaaagaact	_		
70321			gagctgctat			
70381		_	caagcagcca	_		-
70441			ttaaagaaaa		-	-
70501			tgatttcacc			
70561			ttatttctgc			
70621			aggatccaat		-	
70681	-		agaaggaaga	, , , ,,	_	
70741			aggagggtca			
70801	ttcatgatgt	tatacaaact	ctcaccatca	aaaggaacag	tgctgtggag	attcatggaa
70861	aaaggccaaa	atcacagctg	tgtgcttcct	gtttttgagg	ttgaattcat	gcacaactga
70921	taacattcaa	atctcatctc	ctgtgataag	cacagagaaa	atgaattgtt	tttqctttaa
70981			tcaacgcaaa		_	-
71041			acagtctgtc			
71101			attttattt			
71161			aggagtttca			
71221			acataaagca			
71281		_	_	-	-	
71341			taagttcttg			
			taagatctgt	-		-
71401			cgtagtgttc			
71461			agtggaggca	-		
71521			aaatgttgga			
71581			ctttcctctt			
71641			caaattttca			
71701	ttctcacaca	agttttgcag	atgaggtgag	agattttcat	gagtgcttca	ttgttagggc
71761	ctgattcgga	ttgactcctg	tctataagaa	gggagaatca	tctttgtctt	tttacatttc
71821	ccctctcctc	cctctaaaaa	ggggagaaaa	acaagctagg	tttatctttq	tttacctttq
71881			agtttactga			
71941			gaatcctgct			
72001			ttcctttgtg			
72061			aggaccatct			
72121						
			cagaactgga			
72181			agagttatag			
72241			atgtcacttt			
72301			aggccaggtt			
72361			tagaagggtc			
72421			accattattg			
72481	tgttcaaata	ttttaaatat	catagaatat	tcagagattc	aaatgtacag	attcctacag
72541			gtgtgaaaaa			
72601			actcaatgat			
72661			tcaagtattt			
72721			ttgagtttaa			
72781			taatttttaa			
		- cadadataty	Jacobblad		Jacobbaget	ccccyccya

FIGURE 5-T

```
72841
       aaatgttttg atattactaa ccattcagga ttttctctag aagtaaatgg ttataaatta
72901
        tgtatatacc ttaaaataga aacaacactt aaattteeta ggtettacat ttttaaccag
72961
       taactgcaat tgatactttc ataagaataa ttatttgctc aagacagaaa tcccagcaaa
73021
       aaggaaaatc acacttaact ttttgaaatt aaaacataac cagaagaata actgcgtaat
73081
       tattctttac tgctqtqqqa qtcaatcaat aqcccaqatq aataqqtaqa tqqataqqta
73141
       cacagaaagc tatctgtact atatcttgaa tatcagcata gtactcttct gatctttgtg
73201
       ctcccccacc cccacctttc tctttctctc tctctctaaa aatggatttt gcatgctttt
73261
       ttccatcata accatggatg catatgtatc tcattctgct ccccaaagag ttaacatgaa
73321
       caagcatgca atagagaaag caaaccagga attcccatgc cctaacaacc ccaacacaca
       aattcaacca tgttgacaaa atgggaaggg agatcctgcc aaattaataa gaaagagaaa
73381
73441
       gtgggaagag agacagtttg ttaccgggtc tcacctgcct tctttgttca tgaataggtt
73501
       tttactcttt agcttcaacg tgggcaacag cagttaggca agattcacac attatttgaa
73561
       attggacaaa aaggatacaa gaggccggct atggtggctc atacctgtaa tcctggcact
73621
       ttgggaggct gaggcccagc ctggccaaca tggtgaaacc tggtttctac taaaaatgta
73681
       aatattaggt aggcatgcct gtaatcctag ctactcagga ggctgaagca ggagaattgc
73741
       ttgaacccgg aggtggaggt tgcagtgagc caagatggca ccactgcact gggcaagaga
73801
       gcaagactct ttctcaaaaa aaaaaaaaaa aaacaaaaaa aacaaaaaa agatagttaa
73861
       gagaaatttc ctagaatgct gtgtatacaa gcttttaata tagttctatc aaaatttaga
73921
       aggaaactga gatttaattt tttaattaaa ttggatatgc agcccaagaa agtatacqcc
73981
       aactttttac ttgactacac atttcacatc ttcagataac attcagtaac tttttaataa
74041
       caacttgaat acattacatt taaatatttt gattatttgt agacagtctt ccagcaacat
74101
       aattaatttc ttcccttcat caaaaatctg taatgaatta ttctttcaac taaagatttt
74161
       cctcagcata ataagactac atttaaaatc taagaagcaa atgcttccct acttcaagct
74221
       tatttttaaa aggaagccaa aaaatgatct tttctgaata aagtgtttca gaaaggcata
74281
       gaatacttca atattatagt aataattatt gtaaaaggat agaattcatc tcataccatt
74341
       ctattacgtt tccccctaga acaaacaaaa tgtatcctcc tgagtttaat ttcaagtctt
74401
       tgaaaagaat gcagtcttca gaaattagat aggaatttaa gctctaattc ataaaacatc
74461
       actttcctcc atggaactag ttgaagatta catattaaca gcactccttt aatttaatat
74521
       tctaaaaaaa cagcatctaa aaaaaaagaa atagtgagca ggaggccggt ctgatgacaa
74581
       attacattaa acaatatcat tatccttagc cctcagtgtt ttccattttc cagatgttta
74641
       aaagacacaa aatgaaaact ctcaattgcc caagaggtag atgatgaact cattttccag
74701
       acaggaaact gaggcaatga ggctttgcca taaagtataa aaatggtcat cagcagaatc
74761
       aagattagaa gcagaaacac ctggttacac attgctgctc aaaacacatc aatagaatgt
74821
       caggaataac gttggttctt tcttgcaacc tgtgttccat cttgctgtat gacatgcaga
74881
       gctgacaaaa gatggaaact ctatttaaag ttgatggcac atctatcctc caatgtcaaa
74941
       cccgtgagag caacatgagg aatgattatt tacaatgaca tcatcagact caggaacgta
75001
       gtctacgttg aaattacaca gaatgcattt cggtaacaag atcaagacat ggaaagcaaa
75061
       attaaaggac agctaatgca aaaatacaac atcaattcaa tagttctact gatattccct
75121
       acaaagggat gttttaaaat acaattaaaa atatattatt gaacaaccat atttgaaatt
75181
       tagcacattt ctatgccgat gtcagccttc atctgcacgc ccttaaatta ggagggaata
75241
       ggcatagaat aattttgctg catattatgt tgaaaacatc tgtttctaga gtacaaaaat
75301
       ctgttcttat ccactacaga taatttacca agcttctcaa atatattaaa cgctccagaa
75361
       aatttgatta tttcacctag cagtggtatt agccaaacaa gtatggtgat cagactggag
75421
       atacacttgg tgggagatgc tttgcaggag gtgcaggaag ataaacggcg gcacttttct
75481
       ttaggcacat gagaatgatg tccattggtg ccaacaccac agttattgtg tgaggagcca
75541
       gtacattagg gacacactaa catagacgac acacagggtt atccagttta ctcttgtgat
75601
       tggcagcctg cagttacctg tcacgtggag gatgacattg gaagagagag cgccgctaga
75661
       gttttgggcc cgagccacat agaggcctgc gtctgccttg catacctttg gaatgaacac
75721
       cgaatgcctt gtctccttgt gtaaaacctg taagtgccca tctgcagaca atttctggcc
       cttcttgtac ctgaagcaga gaggcagttt ttaaagtcag gattgctgtt tattcacatt
75781
75841
       atttccaagt tctaataatg cttgcaaata ggcccattac cactgcaata ttctcttagg
75901
       attagtagga accttgtagc cacaacaaat tccagtgggg ctctttatct ttttttcttt
75961
       agtaggctag attgcagtag cagaatcaga gatcattgcg gtctcaaact cctgggatca
76021
       agcaatcctc ccacctcagg ctctcaagta gctgggacta caggcgctta ccaccatgtg
76081
       caggctaagt titttattit tiattitit taagagatag gatctcgcta tgttacccag
76141
       gctggtcttg aactcctggt ttcaagcaat ctgcctgcct cagcctcctg agtagctggt
76201
       attatgcgct gtttatcttt caagcagaag ttggcaactg gtggcgagag aattgctttg
76261
       actggctcag acaatgtttt tggaaaactg aattttttga aatcctttaa aaattggaat
76321
       attgcatatg aaaattcaga tatccagcta cccctaaaaa caaaaacaaa aacaaagcag
76381
       accatttggt cacactaggc caccatttgc tcatagtaac aattacctag ggtgtgaaat
       ggcaccctca tgttgtccag ctttattctt tttgccactc tggaacagca gctgtgactc
76441
76501
       cttataaact gcatgggagt gagactcatc taccccatca tattcatacc acagtatcca
76561
       caggacaata cagatgtgct gttttagagg actgtactta atatcacctc ctgatgagat
76621
       cacttcattt aattttttg aagcaatttc attagaagaa aatgacttct aattataaaa
```

FIGURE 5-U

```
76681
       ggtatttatg caactgtatt atgactatta ataacatatt tctagaaggt tcctatgaac
76741
       atgagtgctt aactgcatgg ttttataaag aaataatttt attttgtatg tctgagattc
76801
       ttgtttattt atttctaccc acaatctatc actcaggggt gatgacaaat gtgaatcgtt
       ttctgttccc attgcctaag tgataacttt gccttttctt gggtatccta agaatgtatg
76861
76921
       atatcctqaa agcttqtcaq ttattaattq agcacaqttq taaatctqac qacaaaacat
76981
       ttgtttacaa cattgcaata ttcttcaacg acacgtatgt agcagtgctt ctttaaccac
77041
       acacatacta accaaattat taatatttac tgtgtggaca aaaacaagaa acacatctga
77101
       caacattttt ctttggagtg aactgagatt taataatgaa ttaaatatct ttaaaattca
77161
       taaatatgac actcttgatt tgtaaaaaac atgcaacagt aaagacaata aaacaaaaag
77221
       caaaagtgac tgcactaata tagcacaagt gcagtttttt aaataatttg agaaaccaaa
77281
       gttttctcat aagttcctta gataactggt tcatatttca agtaccatca atgggcacac
77341
       acaataactg aaactgatca tttaatatct actgaaacat tgtgatcaat aaatgctatt
77401
       ttacttaatc ttagtttata agtataaact ggcttttgca gatttgtaac tttgtcctga
77461
       aataaattta cttaaggatg agaattttct aaatgtttaa aagtaaccca catattgaga
77521
       aagaactgct tttgttacca atagtaggtg atccaaaacc agtattctac agtttgcttt
77581
       tactgaaaaa aagaggctaa aaaataatga tgtctccaga gtgaaatcat attgtttaca
77641
       gctcagttat tatactacct ttcaaaaatg agtttattgc ctgtcacctg gaggaactgt
77701
       gacagaaata tttatattcc acctctcaca ttgaaaaaat ttgtaaaaag aaatcctagt
77761
       aaaacaaaat gttacaaaga tgacacgtgt gactctgttg gaaagaggaa aaagatgaaa
77821
       gaggtaaatg agagtaaagg gaaataaaaa caaattctta tattttcaat tgcataaagg
       tagttaaagc aagcagatgc catgcttata tggaaataga caataaaaaa taatttcaac
77881
77941
       ccacaatctt tagaaatgtg gaatgttaaa cacagaagaa aacaagcaca accaacctac
78001
       agtgctttgg aaatttgtta aattattagt actttatatg gttacctttt attttctta
78061
       aaggtattaa ctatgctgct actaaaatga gaggggtctg atgtgagatt gaatcatgca
78121
       qaqttqcaqt qtcataqaat attaatcaqc taqccctaaa cctttcaqtt aqtqctcaca
78181
       gaatgatttt tototgigat tgaatttgit tooatttatg gottgicatt alaggotace
78241
       caccatgtca gtgtaggctc tggaaatcct gttacttcaa cttccaaagt cactggagaa
78301
       ccttccatga cagttacatt agacaggagc ctggagaaat taggtgcctg gtcagctagg
78361
       ctgaccacge tgctctttgc tgatgtgctt ttaatctctt ctcgaggaac catttgcctc
78421
       tgatagcccc tgctggtgcc tgattgaaac ctgaggcccg agaatgcatc agaggaagca
78481
       tgcagcctat cttgggtttt agtgaagtta ttatcagcat gcattttctc ccgtgtttct
78541
       agcaaaccac cctgagcctg agggtgctgc tgtaaagctc tctcatgcac ttcactcatc
78601
       atgetetetg gatgtteage actgattetg tgtaaggeag tactetttte caegaateet
78661
       ctggaggtta gtgggggctc agctttgaac tggaggtaag gcctctcaaa atgacttgaa
78721
       aatgtttctc tcttatcatt gcatgcatcc gcaaaggcaa caggtggtgg aagaacagat
78781
       tectgggeat eccetggget getggteeca geetgeacee catagetget tatgtgaagg
78841
       ctgagggagg agctgacagg ctcttccacc tccatgtcag atggtgcaag aggggactca
78901
       gggcttcctg ggagaggagg caaggagatg tcatcaggtg agacacactc atattcttcc
78961
       cctgagagca tgtcttcagg caggagcagg tcctggacgc caccetcett gtcagtggac
79021
       accttcaggt cttgtggtag tcgctcttcc cctgttccat tgatgcccaa aagatctgcc
79081
       acctgcacct gccccttgaa aaaagaaaag ccaaatcatc cttattcatt catttttctt
79141
       tttccagttt caattacagt aaaactcaac ttcagagaga taactcgaga caacctacaa
79201
       ggttaaaatt tagggggctg gagcaagaat taYggatgag aaaccatttg tctgtcgatc
79261
       ctgagcacag tcccacttct catgactaag gaatcattat aaagacctca agttctgagt
79321
       aaagtgtgat agacattgtg aacagaagag agaaagccct agtttccatc tgtagtgaag
79381
       gggttggact agatcaacat ctttcaaacc atgatctggg gagtcttctc aaacagcaaa
79441
       gtcagcttag gtctggcttg tctacacaca catctataaa cacacagatg ctgaccatca
79501
       gagactccct tgttaggtga ttccttggac tctcccggaa taacctgtcc tttctctcaa
79561
       gaaaaccatt tcttttaaa ataaattgta gtgaaatata cataaaatgt accacttcaa
79621
       ccatgtttaa gtgtacggct cagtggcatt aagtgcattc acattgagtg taactatcac
79681
       tgccatccat ctccagaact ttttcatctt tccaattgaa attctgtatc cactaaacac
       taacccccta atctttgtc ttcccccgac tcagcctctg gcaaccacca ttctattctc
79741
79801
       ttgctctatg catttgaccc ctctatgtac ctcatataga gaaagcaatt cttcatgact
79861
       agttttattt tcttgaagtc ccttagttta ttcttgcatt gaaaaaatat ttattgagca
79921
       cctactgcta tacactagga accatgctag tattagaggc ataatttggt gaatacaagt
79981
       agatcagtct ctgcagttga ggagatgata tcctagtgga ggagScagat attaatggaa
80041
       caatcagact tgatggcctt tcccaagaga gcacatcaag atacaatagg aaagcacctg
80101
       ccacttgtct ctgctccaat ctgagtgtag tcctgctagg agtggtgagt agcagtactt
80161
       ctttctctgc ttccactqtc ctaqtctaat ccacatccat ctctqqttta aqaaqaqqct
80221
       caaatgtccc tgttgcatag actcaaaaga acattgaagc tgaaaagcga tcttatctat
80281
       ccccacctgc tggttttata tctcctttct gtgccgttcc tcagcatttt gggtgcctac
80341
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80401
       ttgccttgcc tttgagtttt tcattttagc ccgtagtcct gctgttgata tacattttgt
80461
       aagtgatttt taagaaaata agactgggtg cggtggctca cacctgtaat cccagcactt
```

FIGURE 5-V

```
80521
       tgggaggcca aggtaggggg atcacaaggt caggagatag agaccatcct ggctaacatg
80581
       gtgaaacccc acctctacta aaaatgcaaa aaattagcca ggcgtggtgg tgcgcacctg
80641
       cagtcccagc tactcaggag gctgaggcag gagaatctct tgaacccaga aggcagaagt
80701
       tgcagtgagc caatattgca ccactgcact ccatcctggg caacagagtg agactctgtc
80761
       tcaaaaaaaa aaaaaaatag ctatgtgtgg tgatgggtgc ctgtaatccc agctactttg
80821
       ggaagctgaa gcaggagaat ctcttgaact caggcagagg ttgcagtgag ccgagatcga
80881
       gatcgtgcca ttgtacccca gcctgggcaa caagagtgaa acttcgtctc caaaaaaaaa
       80941
81001
       tactatccca cagagattat ctctcctcag agaaacatta acccaactta gcgaaagtgg
81061
       tttccttcag ccatttacta aaagtttaaa ttctgagtct aaaacccaga tgttcttaga
81121
       agttcccctc attaaaaaga atattaaatt actaattqcc cctcctctt ttqqctqtcq
81181
       tgccacaget tageteggte tetetgteea tetetteatg aaagtagaat gettatttte
81241
       ctccttatgg ggactttgat taaccaccta ttcagtctaa gaatctccac tacaacattt
81301
       tggcagcctc tatttgaaca ctttttctga aagagtactt tgagaatgtg tgccttactt
81361
       gtgttaagaa tatcttccta tatgtagcaa agatctgcct tcctgcagtt tccaccaatg
81421
       gatctgaatt ggcctcctgg agctacacaa aaagtccagc tgctctccaa ctttaatagc
81481
       tctttgactg tttggagaat tggtcctaca acctgtctaa gcctctttct ctgtaccaga
81541
       cacteteagg tettettttg ceteaactet eteteateat ettggteatt tetgggaggt
       cccactccta ctgcgccaca agatccttca tagaagagca gggacatttg ttgacttgtt
81601
81661
       ggccttccag gggcagacaa tgacaactcc ttaatgactt cttcaggtaa cctatgactc
       tccacagaag aataatgttt tagaattgtc tgaaaactta caacaagctt aggagagaaa
81721
81781
       cttgaataca agtccagacc catctcccaa ctcctcaatc cctgctgggg aggaatttat
81841
       ttcctaattg agggtttgga agaaggtact gagcatgctc agatctgtct ctatgaggcc
81901
       ctcacttttg gatttgcctt tcatgaaatg catgggttca ggttggctct aaggcatgaa
81961
       aatcccccgg aggtgaagtc tgtggtcgtc tagatggca cccaagtgga ctgggtacat
82021
       atttaatcta tttaaatcag gcatgaagtt tagggaaacc cactagaaaa gtccaagcca
       tccagcttta actggttcct gactcctgta tcttactttc agctggtgcc aaacacatga
82081
82141
       aaggaatata aggctatcat tttttcactt ctaacaattc ctaaaataga aaaagtactt
82201
       tcctcaaaaa ataacactac ccaataattt ctactatcaa taagaggaaa agagttttct
82261
       caaatctttt tctggaacca tttaacttcc cattaaacat gtttgtttct agagttgttt
82321
       actttccaga tggtaagtaa tcagtggaat catcatcttc ttgacttata tgatatgttt
82381
       82441
       tatgctgaat ttgtagtcaa ctaaaatgtc ctacctcctc tgtccattaa tgctattgat
82501
       gaaaatgttg aacactgcag tgtttagaac aaagttagat atctccacaa gacagattgt
       ctccaaagtt gacgttgatg aactacttaa cactcttgag tacaattata acttggccaa
82561
82621
       acceteatte agtacacatt tetecactta tettaagaga geateataag tgtgtttate
82681
       aaatgacatc ttgaaaccat aataaattat gcctatggca ctaacctaga attactcatt
82741
       aaataatcat ctcgggaagc aagataaggt gagtttaata tatatqcaag tqqtcttctq
82801
       agtaaatcaa tttggctctt ggcactactg cttttattct taaatgcaaa atcgaatgca
82861
       ttaaattatc acaggtactt caaaactatg tacatctatt atgtatcata taaaaattaa
82921
       aaaaattaaa aatgcaaata agatttccgt ttttaagtca ttatggaatt ttatggaaac
82981
       attattttat tttattctca tttttatttt tgagatggag tttcactttt gttgccaaga
83041
       ctgqaqtqca atqqcacaat ctcqqctcac tacaacctqc atctcccaaq ttcaaatqat
83101
       tctcctgcct caggctccca agtagctggg attacaggca cccagctaat ttttgtattt
83161
       ttagtagaga cggggtttca ccatgttggc caggctggtc ttgaactcct ggcttcaggc
83221
       gatctacccg ccttggcctc ccaaagtgct ggggttacag gcgtaagcta cagcacccag
83281
       ccagaaacat tattttaaaa ctcactgagc tatattttct agaactgtct agttttcaac
83341
       tatgaaaatg ctatccaaac atttacatat actaattatt tgttaatatt ttttcaccat
83401
       aaaaccatgt ttgttattac caaaaaaaaa atgtgtgtgt gttatttacc cagaaaagtt
83461
       taaataaatt tatggttttc agtacagaca gggcatattt acatcagtct aatgagttct
83521
       ggcaaaatag ctgggaaact ctgatctaat tcaccaaaac atagctcaac tctcaatctg
83581
       cttttcttat atcaaattga gaggctgatc tttqtctttt tqttqattcc tttttctttt
83641
       cccaccttct aaatatatga atggcctgca gtcttatctt taagttctct aattgtctct
83701
       atattccttg cccctcaaac atcttaccca cttacatatc tagtaaacaa ttagctttta
83761
       attaatacta aatctattag cttcaagtct tatctctgtc aggacttctg aactttcatt
       tctgctgatg ggcataatcc cttgcattta aatcattgcc ctgtaggcag aaaaaatgtc
83821
83881
       tagaagggag aatacagtga tattcctaca tccattcaac taagtgggca gaaccaatcc
83941
       tcaaagtcca tagagcaggg aactacatat gtggtaaatt tgaaggaaca ctacaagatt
84001
       ttatcttcca aaatacctcc ataacagata gccttacttt agggtaaata agatttaatg
84061
       aaagtaagta ggaagaacac aaaggaagat attaagcata ggacttggtc tgtaaaacac
84121
       atttgtagag aaggccctta gcgggggctt tagacaaaaa ggggtaatgt ggtattttgg
84181
       ggcactttag gtggacaagg taaaagaaaa gggaacagag aggtggtgaa gaagaacact
84241
       aattttcttc ccaatttctt tcaaggcaag tgtttcagga acatcttcct gtacctgccg
84301
       ggtgatcagg attattgtgt gtgtgtgtgt tgagggtaga gggggagtgc agggaccctc
```

FIGURE 5-W

```
84361
       ctcacctagt ctgataagag cactccactg aattctttgg tgcaaaaaat atttccatgc
84421
       tattgcttat aagcagataa ataggaagag gggaaaagtt tgtcatggac atctacagta
84481
       tcattacaaa gcagcttatg tatacgcaat agttcctggg Rgctcccatt ttggtcttgY
84541
       gggaaaagtg tatggctaaa attcaggaga attggggtga ctgccagttc ttacactact
84601
       ttctgtaatt tttggaggac aatatattca atccttttg qcctcaqttt cctcaactgt
84661
       aaaatgatat ttgattaaat cccttctagc actaaaattc tataactcta aatgctggca
84721
       tcaaaagcca tcatcttcca ccaaatagtt gcacgacttt aggtgagtct gttaatactg
       tgtgcttcca tttaacctta ggagttttca tatcttcagt gctcacattg ggaataaaac
84781
84841
       accatcacta atctgttagc agtgctacgt gtgttgcatt tagtgaattg cctaattcca
84901
       cctgctgcat ttttgggtct gaaaaatgag aagtactttg ctatctccag gaaaaaaaat
       ccctgcattg aatatattct tatagtagtt cagtggaact attctttcca actcaaataa
84961
85021
       tttcctcagg aattctacca tcatttaagg gtatcagaat tgactgcaat aataccagga
85081
       caagetttte acttggtget teetatetge ceacatgggg ttgtggagaa teattacate
85141
       tgatctacat ataaataata cagacaataM gagggtaaat gtgattgagc tacttaaaag
85201
       tgaagattac tgccaccttt tcattttgct gtctacacca attgcaccag gacataacat
       gacgttaata acaattettg acagetgtaa ttgtagaccK tcacttacac ccaaaatgac
85261
85321
       tgatgctcca accttttagt ttgtattaga ataaaagtta tttttccatg aaggtaaatc
85381
       ttgctttttt ttaatttaaa ggaatctgtt tcttctaaca agaaaataaa agcaagaaaa
85441
       actactttta ctaagtataa attattttg tttgctttgg tagcaataac ttttgtttct
85501
       gagttcttag taagtgtgtc tagttcacaa tgtaggaaat tgtgcagaac taaataaaat
85561
       aaatgatagg gtgttggagt tagtaactct tagaaacctt tttaagaaaa tgtggtgcat
85621
       ttaaggctat totttattgt gtcgaccact cattotcaaa tgaagtgatt ttagtataat
85681
       agatgctact ggcatctagt gagcaaggcc aggaatactg ctaaactaca atgcgtagga
       cagctcccca caacagagaa ttctctggcc aaaatgtcaa cagtgctgtg gttgagaaac
85741
85801
       cctgatttag accaatcaga gtaacgtaaa accatttgat acaagagtag catccagcaa
85861
       aatgaccaaa gtttggcagc tctcctttgc ctcagagagg aatctgggtt taagtcgctc
85921
       aagaccctac cacaaaaaaa gacagtttgc ttaacactac ttgctgcctg ctggttgtat
85981
       aactgcacca ggccttgaca tagattaacc tgtggaaaag gacctataag aaagctgaaa
86041
       gaaccatact gacttcaagg aaagataaat ctttctccac aaaataactg ttacaaatgg
86101
       agagggtttt tgtttgtttt taactctcat gtcacaagaa gtgtatttta ttaatttgag
86161
       cacggttcag aataatgttg actttgattg ttccttcagc tcctcaggag agaaacactg
86221
       ggagcaggca acttggcaaa gcaaaaagtc aaaagctaat tatagtccag cagctgtgaa
86281
       tagagagtga gcaacttatg ctgaaaaacc atcttgatgt tgtgatttaa ataacacttt
86341
       caaaatcatg atacatttgc atttttgtga gtatctgtag tcgttacatg ctttatcagt
       aagtgcataa gtgttacaat aatttaaata tttctctaaa tactttagta tttatatttc
86401
86461
       agctggattc tatggtttga taaatgtgcc tggaaatatc atcttagagg tagagtctat
86521
       gggaacaaga tatgatctaa tttcacgtat taagctttgc taatgggttg tgtaaaacat
86581
       aaaaatcatg gcttggcaat atgataaaaa gggataagta aaatttgaag ttggattgga
86641
       tataaaaaga caatggaaaa ggcagctaga gatgggaaaa acaagtggtt tggggtgaca
86701
       tggcatttaa atggctgtcc caatgctact gtgaaatgtc atggtttcca gtactcgata
86761
       gtgagaagct cagaggaaac agcacaacag agagaagaag caccaataga ggagcaaaag
86821
       gaagcaaggg aggaggaaac tcacattgca tttacactgg gaaattctat ttggatagat
86881
       aagaaagctg caattcactt ttattttgca atggacaatg actttaacct caaagcaaaa
86941
       gtcctcaata gctgaggtta agtagttttc tttaccttat tcctttcttc attgaatatt
87001
       gtctgcttat tttttgctgg ttcctttagc aagtcaatgt aatcataatg gaagtcttcc
87061
       aaattcggat tcatctttaa aacatctccc tgctgtacaa agcaacagtt agtgagagca
87121
       tgagccagga aagttggaga acagtgccat acactaacta cttggaagaa aacatagacc
       acttqcaacc tttcaqcaaa tatattccac aaqaqactgg tgtactccca tgatgtgatt
87181
87241
       tataaaatta tccctcccag ctcacagttt ccctcctgcc tcattccttt gatagagttc
87301
       attgccagta aaaattggtt gttgaaagac ccagcaggaa aaaagtaatc attataatag
87361
       gatgcttctg caggagcatt ctctagagaa aggaatcatt atgcatggca gtgtaaacca
87421
       ttaggagagt ctggggagca gcagtgaggt agaaatgatt aaagatctct aggggagaag
87481
       aaagtaggaa atccagagaa tctacacaag caaaatactg gggagactct tgaaaagagg
87541
       aataaaatat cactgagtat agtaaagaaa aacagcaatt gagaacacag gatgcKtcat
87601
       gtggttgaag atattttgtt ccctgcattt catggggctc agttttagtc atggaggtag
87661
       tgggggtttg caaagtactg tggagtcagt gcaagagccg agaagacttt gtaaaggtgg
87721
       aaagaaccac tggtatcaca catgatagaa cacaccagtt tagaatgatg attatactgc
87781
       aatggaagag tctctattcc acctggaata aaatccttag atgagtctta aacaaacatg
87841
       catgctcatc aaaatgcata tgcaacactg gctcggagga ttcagggaga cccactactg
87901
       gggagattct gctttcagtc ccaactctaa accgaactgg tttgtgctgc tcaatgagtc
87961
       actctgcttt ggtatgcagc tgatatctta ttccaaaata tcagctggtg tggaaagaat
88021
       gctagatttt gaattagatc taaattcaaa tttcagatct accactattg actattgggg
88081
       cccatgtaaa gcactcttac cctctttgga cttttccttt cacctctaca cagaaaacat
       ttgccttctt ttcgtctcaa cattatttgg aaatcactgg agataatgta tatgaacgtc
88141
```

FIGURE 5-X

88201	ctttataaat	ctcaaattoc	tatacattag	aaaggatttc	tatcactatt	taagccctga
88261			ttctataact			
					-	
88321			agacatttgc		_	
88381			gtttgttgcg		_	
88441	tatttctctt	gccagagaga	ccctttctca	tttctacatc	cacccaaatt	aaacatcttc
88501	aagcaatgaa	tgatagttct	tctctgtacc	aatccattgg	gcatttacta	caaatgccaa
88561	aactctttct	ggagtacctg	ctttagaaag	caaagcaggc	caggtgcggt	ggctcacacc
88621			aggccaaggc			
88681	-		gagacctcaa			
88741		-	gtcccagcta			
88801						
			ccgtgagcca	-		
88861		_	taaataaata		_	
88921			cactaaattt			-
88981	tcaagtaggg	agggttggga	tggcaacagc	agttatatgt	gatgtaatta	tatgtagtag
89041	ttatatgtgg	gattatacta	gtgttatagc	ctgaatgttt	atgctccccc	aaagtttata
89101	tgttaaaatc	cacatcctta	aggcgatagt	attaggagat	gatgcctttg	ggaagtgatt
89161	aggtcatgag	ggtgaagccc	tcatgaatag	gattagtgcc	cttagaaaag	aggcctgaga
89221			catgaaaggt			
89281	_		cagcatcttg			
89341	-	_	ataaggcatc	-	_	-
89401	-	-				
			aggcacacaa			
89461			gaggaggcag			
89521	-		aaggtcgtgt			
89581	cccagggagc	atagtagatc	agtgggacac	agacctacag	tgaatgcaga	agcacaatgg
89641	tttggaaagg	tgaccagctt	cagaacattg	aaaggccttg	aattggaact	tgactKggta
89701	aggaagagtt	tgtagtagag	tgttgtgaat	gtgaagatga	cactagcaga	actatttagg
89761	aagggtaatc	tagctgggag	tataattagg	ggactcctga	ctactgcaaa	agagaatcca
89821	agtgacaggt	tgagcgtgag	aaagagagaa	tgcaatcctg	actacactga	gggtgtaagg
89881			gagaggctgt			
89941			gatataactt			
90001			aaacgggagg		-	-
90061						
		-	gccttcgtat			
90121			ggaaagaata			
90181	-		aatgatggga	-		-
90241			ttcagttttc	-		
90301	taataataca	aaagaaagaa	aaagctatgc	acgaagatgt	tcattgtagt	gttatttaaa
90361	atggtaaaat	ggtaaaaaaa	aatctagatt	tttaaccaaa	ggataaagat	aatttggttg
90421	ggcacccact	gaattaaaag	cctcacaaac	tatttgaata	gaagaggcac	ataaatttat
90481	gacatggaaa	ttcctacaga	aaaaagaggc	tgctagaaat	aaacataatt	ctgctctgaa
90541	ctgcaagacc	accactagge	ctcaataaca	attatcacaa	caataatctt	gagtatcttc
90601			ccctgggatc			
90661			ggtcacaaat			
90721			gcctttgatc			
90781		-	gctataaaaa	_		
90841	-	_	tatttcactt	-	-	
	-	-				
90901		-	aatttgtatt			_
90961			gaatgaatat			
91021			aaaaaaacc			
91081		-	tactggcaga		-	
91141	atccatgaaa	atgtaaacca	gacaccttaa	ttgtgtttag	ccttcattac	cagcaatatt
91201	tttctctgca	gtgatgggaa	agaaatagaa	ttaattatca	caaacaccca	gataattatg
91261	tttgaaagct	gtaaaacaaa	tgtgcacatt	atgtaccctg	agaaattctg	ttaaaatgtc
91321			attaacacat			
91381	_		tcagtttttc			
91441			ctttgtgttt			
91501			agaaggatga			
91561			attcatctcc			
91621			gaagagataa			
91681	-		ttacatttgc	-		
91741			cttaaagctc		_	-
91801	ttcagtggtt	cctctctgct	tagagaagaa	taaattcctc	aggatggcat	tcaagtccct
91861	tccataacat	ggcttcaatc	tgcctctccc	aaatgtatgt	cactctagtt	ctctcctgta
91921			aaccagcaac		-	-
91981			ctactgtccc			
			-		, ,	

FIGURE 5-Y

```
92041
       acctactctt taaggtccac ctgaaatgcc aacatttctg tgaagatatt cttaatcttt
92101
       tccaactggg tttctctcta tatattgtaa taaaaatagc taccatgtag cacatgctta
92161
       ttatttgcct gtgcctaagc actgtataac cattgctcaa tgtaatcctt ggatagatWc
92221
       tactactatc cacattttac aaatgaggaa tgtgatgctc aaaagatctt cttgcctcgg
92281
       catagtgtct cgcgcctgta atccgagcac tttgggagac cgaggtgggc agatcacttg
92341
       aggtcaggag ttcgagacca gcctgaccaa catagtgaaa ccccatctct actaaaaata
92401
       caaaaattaa cctggtgtgg tggcacatgc ctgtgatctc agctactcgg gaggctgagg
92461
       caggagaatc acttgaaccc gggaggtgga ggtttcagtg aaccgagatc atgccactgc
92521
       actccagcct gggtgacaaa gcaagacttt gtctcaaaaa aaaaaaaaa aaaaggactt
92581
       ctttaggtga cccagacaat aaatggggga acaaggattt gaacccagaa ctatctgact
92641
       ctacacccta ggccaagatt gtatcacaca ttgttatggg ctgaactatg tcccccatc
92701
       ctgccaagtt catatgttga agtcccaatt cccagtacgt cagaatgtaa ctgtatttgg
92761
       aaatgagatc tttaaagagg tggttaaatt aaaatgaggc cattgggatg gggcgctaat
92821
       ccaatgtgac tggtgccctt acaagaagag ggagagacac caggggcatg tgtgtgcaga
92881
       gggatgacca cgtgaagagg cagcaaggga tcagccatct gcaagccaag cagagtggcc
92941
       tgagatgaaa tcaaccctgc tggcatcttc atcttggact tccagacctc agaagtgtga
93001
       gaaaagaagt ttctqttgaa gccacccagt cagtggtatt ttgttacggc agccctagca
93061
       aacaagcaca aacattttat gtccttctca ctccatttac cataccatga cttcaaggac
93121
       tagactgtgg tctcttgaat ggaggaacta ggtcttaatt gtctttataa cagccacagc
93181
       tcttagtaga taacaggtat gcacaaattt gtttgagata attttttgca tgaaaattct
93241
       gagttcagta atgcttgagt agcttgcaag agttgataca atcttaaagt gcctcccttg
93301
       atgcaaattt taaaaaatat atagcttccc taccaaacag acggagactc atgtcattca
93361
       tttactcatt cagtgattca tttatttatc aaatatttgt taagcagttg gtatgtgcca
93421
       ttagacagtg aactaacaag caaaatcgct cctcaaatac agcttacact ctggtaagga
93481
       aagtcaggca acagacaaat acctatataa aatgtcagtt ggtgataagt gccaggaata
93541
       taaacaaagc cagatgcagg atcttgcagg acgggaaggg aatttaactt tttagggtct
93601
       ttgtcagcac ttctcatgct ctgagattga ataggcactg atccaggcac aaatacagtg
93661
       aaaaaaatat actttcctca agtttatggg tagtagagaa gaccaatagg tatttatact
93721
       acaacgtaaa aagttcaatc gtggaggaaa catatatcag gctatgggag cagagtgtct
93781
       ccaaaatatt tagtgcactc acacggtaac tccagcaaga agatgtcacc ttagtttcca
93841
        ttaatttttc aatccatatt ttattatttt tatgtttcta tccttttctt ctggaatatt
93901
       atgaataatt cattctcaac aatttaagta gtatactaca aaatttatgg ctctccatgg
93961
       ataqtqtttc atqttataaq aqaaaatacc tqqcaqcaqc catqqqcaqq caaattaaqc
94021
       attttgtacc aactgttgtg tcttctttct gggctgcatt tgcctggtca ctgggaatta
94081
       ctctgggtct cacaggaccg ataccaggga attcatggaa cttattcctc agaaccctca
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        agaactatca tcctccatgg acttcttaaa tggggggcct cttttaggag gaaggatctc
94201
       tcaggctgac atgacattat ctttcctagt catggaagag aggaaagcag aacttgtaaa
94261
       atggcaattt gagttctccc atttattcca caagtgagag gaaagtgaag gagaattttc
94321
       caggicettic tcaaatatgi gagccaaaag cctcatagaa aggagaggac tggagactic
94381
       agtcttagct ttatgtcttc ttaaagtatt actgaaattt tgtatgtttt tcaaggaatc
94441
       acticating and tagatt tightight gittight at ataagcing a tatighticing
94501
       gtgttattac cctagagatg aacaacaggg atggaggaga aaagagaata gagaaggaag
94561
       gcttacacaa agtaggtaaa aatctgcagg cttcatctgc tgtcagaaat tcctcctct
94621
       gttccctgtt tgctttccct ggctgtgggc tcttaccttg aacattttcc ctgaatacac
94681
       tggtgtgctg aggaccctga ggacttgcca cactcttgct gtctactgga ttaggctcag
94741
       tatagatttq ttcaatggcc aatcactgga tatcttaaaa gagatctcac catataagtq
94801
       ctgagcaagg tcagtggcct cctgaatcct ttcttcttgc tgcggcactg agggtgcaat
       aaacttatta aactgctggt ggagaatttt cacagcttcc tttgtcttgc actctgtgga
94861
94921
       atattttcca actcttacaa ctgtggcact tgcatcttcg taccaaaaat gacactaaat
94981
       ttaaatggga taaagcacag atgaaagaaa taccatcctt ctaaagttct taattttgac
95041
       cagtgaagta tcaaatttta attccctcaa cttaatgttc acattggctt gaactttcta
95101
       agtcataata aagaaaatat taaaacatga tcgtattcta cagcacttaa atgttagcag
95161
       cagaaataaa tacaaatgtg aaaatatgta taaataaaac tataagaaag taaaaatatg
95221
       aaaatatatt tgattctcct accttcttag gtttgcctaa aatataattc ctaagaggaa
95281
       tgttgcagac ttataagaac aggcaggata aaaagcatct ggcactaaaa agaatccaaa
95341
       tacatgctaa atggcaagaa aaaagccaaa tgttcacaat ccagcataaa gaattgatat
95401
       cattaatcat acactgctaa agtattgcct gatgaatact ctaataaata aattatcttt
95461
       gaagaataag atttagttta tgaatgggaa aatatcatct aacaaatagc atttcacctt
95521
       tgcttagtag aaaatggtta tagtttccaa acacagtgga gaatgagaca gtttctcatt
95581
       aaaaataact qtqqctqqqc qtqqtqqctc acgcctgtaa tcccaqcact ttqqqaqqcc
95641
       gaggcaggcg gatcacgagg tcaggagatc gagaccatcc tggctaacac ggtgaaaccc
95701
       catctctact aaaagtacaa aaaagtagcc gggcgtggtg gtgggcgcct gtagtcccag
95761
        ctactcggga ggctgaggca ggagaatggt gtgaacccgg gaggcagagc ttgcagtgag
95821
       tcgagatcac gtcactgcac tccagcctgg gaaacagagc gacactccat ctcaaaaata
```

FIGURE 5-Z

95881	aataaataaa	taaataactg	tgatggaagg	aatgtctgac	tcaggcctga	agcacttatg
95941	cagggtgaga	aatagaaaca	catgactctg	ttagaagttg	gttttaaata	agtgccacaa
96001	agggaccaca	aacttataca	tcatatgtag	aagactgatc	attttgattc	tccttaatct
96061	ggtgttaaat	ctaaaaactc	agctgcatta	gtggtaaaga	cgttctgtat	ctcaaacaat
96121	aatgggcaac	aaagaacact	caagaacttc	aagtgcagaa	tttcttcaat	acaaagtgtt
96181	caaacaataa	ctttaacttg	ccaaatttca	tatattttat	gtatactcta	ccatttatct
96241	tcttgacagt	aataaaagaa	aacaccaata	acaactttt	gtagctgaaa	aatcacagta
96301	tcacttttta	aaataaatat	tttcaagttc	tgtgaaataa	ataaaccatt	ctgagcattt
96361	taaacagata	tccagcagtg	aacataattt	catgataatt	aaacatcttc	atctgatgag
96421	gttatggaga	aacaggaact	ctcacacatt	gccagtaaat	tagtaaagac	ttttctcaag
96481	agaaattgac	caataaaatc	aaagacctta	taatattcat	ccccttaggt	ccagcaattc
96541	tatttcagag	aattatccta	aggaaaaaaa	atcatgaaaa	ggagcatgWt	acatgaatat
96601	aatgagaata	acagctaatg	caacattgct	ttaaagttgc	aaaatgattt	ttgaaaacaa
96661	cattacaaca	tggataccac	tgcaaaaaga	gaatacctct		

FIGURE 6-A

Ensembl GP6 transcript ENST00000310373

ATGTCTCCATCCCGACCGCCCTCTTCTGTCTTGGGCTGTGTCTGGGGCGTGTGCCAGCG CAGAGTGGACCGCTCCCAAGCCCTCCCTCCAGGCTCTGCCCAGCTCCCTGGTGCCCCTG GAGAAGCCAGTGACCCTCCGGTGCCAGGGACCTCCGGGCGTGGACCTGTACCGCCTGGAG AAGCTGAGTTCCAGCAGGTACCAGGATCAGGCAGTCCTCTTCATCCCGGCCATGAAGAGA AGTCTGGCTGGACGCTACCGCTGCTCCTACCAGAACGGAAGCCTCTGGTCCCTGCCCAGC GACCAGCTGGAGCTCGTTGCCACGGGAGTTTTTGCCAAACCCTCGCTCTCAGCCCAGCCC GGCCCGCGGTGTCGTCAGGAGGGGACGTAACCCTACAGTGTCAGACTCGGTATGGCTTT GACCAATTTGCTCTGTACAAGGAAGGGGACCCTGCGCCCTACAAGAATCCCGAGAGATGG TACAGGGCTAGTTTTCCCATCATCACGGTGACCGCCCCCCACAGCGGAACCTACCGATGC TACAGCTTCTCCAGCAGGGACCCATACCTGTGGTCAGCCCCCAGCGACCCCCTGGAGCTT GTGGTCACAGGAACCTCTGTGACCCCCAGCCGGTTACCAACAGAACCACCTTCCCCGGTA GCAGAATTCTCAGAAGCCACCGCTGAACTGACCGTCTCATTCACAAACGAAGTCTTCACA ACTGAGACTTCTAGGAGTATCACCGCCAGTCCAAAGGAGTCAGACTCTCCAGCTGGTGAG TCCTGCCGCCAGTACTACACCAAGGGCAACCTGGTCCGGATATGCCTCGGGGCTGTGAT CCTAATAATCCTGGCGGGGTTTCTGGCAGAGGACTGGCACAGCCGGAGGAAGCGCCTGCG GCACAGGGGCAGGGCTGTGCAGAGGCCGCTTCCGCCCCTCCCGCCCCTCCCGCTGACCCG GAAATCAAACGGGGGTCAGGATGGAGGCCGACAGGATGTTCACAGCCGCGGGTTATGTTC CTCAAAGACTGGCGTGTGGAGCGTGGAAGCAGGGGCAGAGGCTACAGCTGTGGAAA CCTCTTTCTTCAACCTCTCTAATATGGGCTCCAGACGGATCTCTAAGGTTCCCAGCTCTC AGGGTTGACTCTGTTCCATCCTCTGTGCAAAATCCTCCCGTGCTTCCCTTTGGCCCTCTG TGCTCTTGTCTGGTTTTCCCCAGAAACTCTCACCCTCACTCCACTCCCACTGCGGTCTA TTCCTTAGTGTAAAACTAGCACGTTGCCCGCTTCCCTTCACATTAGAAAACAAGATCAGC AGGTGTGGTGGTGCATCCCTATACTCCCAGCAACTCAGGGGGGCTGAGGTGGGAGAATGGC TTGAGCCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATCACACCACTGCACTCTAGCTCGG GTGACGAAGCCTGACTTTGTCTCAAAAAATACAGGGATGAATATGTCAATTACCCTGATT

FIGURE 6-B

Ensembl - Q9HCN7 transcript sequence ENST00000333884

ATGTCTCCATCCCGACCGCCCTCTTCTGTCTTGGGCTGTGTCTGGGGCGTGTGCCAGCG CAGAGTGGACCGCTCCCAAGCCCTCCAGGCTCTGCCCAGCTCCCTGGTGCCCCTG GAGAAGCCAGTGACCTCCGGTGCCAGGGACCTCCGGGCGTGGACCTGTACCGCCTGGAG AAGCTGAGTTCCAGCAGGTACCAGGATCAGGCAGTCCTCTTCATCCCGGCCATGAAGAGA AGTCTGGCTGGACGCTACCGCTGCTCCTACCAGAACGGAAGCCTCTGGTCCCTGCCCAGC GACCAGCTGGAGCTCGTTGCCACGGGAGTTTTTGCCAAACCCTCGCTCTCAGCCCAGCCC GGCCGGCGTGTCGTCAGGAGGGGACGTAACCCTACAGTGTCAGACTCGGTATGGCTTT GACCAATTTGCTCTGTACAAGGAAGGGGACCCTGCGCCCTACAAGAATCCCGAGAGATGG TACAGGGCTAGTTTTCCCATCATCACGGTGACCGCCCCCACAGCGGAACCTACCGATGC TACAGCTTCTCCAGCAGGGACCCATACCTGTGGTCAGCCCCCAGCGACCCCCTGGAGCTT GTGGTCACAGAATTCTCAGAAGCCACCGCTGAACTGACCGTCTCATTCACAAACGAAGTC TTCACAACTGAGACTTCTAGGAGTATCACCGCCAGTCCAAAGGAGTCAGACTCTCCAGCT GGTCCTGCCCGCCAGTACTACACCAAGGGCAACCTGGTCCGGATATGCCTCGGGGCTGTG ATCCTAATAATCCTGGCGGGGTTTCTGGCAGAGGACTGGCACAGCCGGAGGAAGCGCCTG CGGCACAGGGCAGGGCTGTGCAGAGGCCGCTTCCGCCCCTCCCGCCCCTGACC CGGAAATCAAACGGGGGTCAGGATGGAGGCCGACAGGATGTTCACAGCCGCGGGTTATGT TCATGA

FIGURE 6-C

NCBI - GP6 transcript sequence NM 016363

mRNA seq

ACAGAGCTCAGGACAGGGCTGAGGAACCATGTCTCCATCCCCGACCGCCCTCTTCTGTCTTGGGCTGTGT TGCCCCTGGAGAAGCCAGTGACCCTCCGGTGCCAGGGACCTCCGGGCGTGGACCTGTACCGCCTGGAGAA CGCTACCGCTGCTCCTACCAGAACGGAAGCCTCTGGTCCCTGCCCAGCGACCAGCTGGAGCTCGTTGCCA ACCGATGCTACAGCTTCTCCAGCAGGGACCCATACCTGTGGTCGGCCCCCAGCGACCCCCTGGAGCTTGT GGTCACAGGAACCTCTGTGACCCCCAGCCGGTTACCAACAGAACCACCTTCCTCGGTAGCAGAATTCTCA GAAGCCACCGCTGAACTGACCGTCTCATTCACAAACAAGTCTTCACAACTGAGACTTCTAGGAGTATCA CCACCAGTCCAAAGGAGTCAGACTCTCCAGCTGGTCCTGCCCGCCAGTACTACACCAAGGGCAACCTGGT CCGGATATGCCTCGGGGCTGTGATCCTAATAATCCTGGCGGGGTTTCTGGCAGAGGACTGGCACAGCCGG AGGAAGCGCCTGCGGCACAGGGGCAGGGCTGTGCAGAGGCCGCTTCCGCCCCTCCCGCCAGA $\tt CCCGGAAATCACACGGGGGTCAGGATGGAGGCCGACAGGATGTTCACAGCCGCGGGTTATGTTCATGACC$ GCTGAACCCCAGGCACGGTCGTATCCAAGGGAGGGATCATGGCATGGGAGGCGACTCAAAGACTGGCGTG TGTGGAGCGTGGAAGCAGGAGGCAGAGGCTACAGCTGTGGAAACGAGGCCATGCTGCCTCCTCGTG TGGGATGGAAGGAATCTGTGGAGACCCCATCCTCCTCCTGCACACTGTGGATGACATGGTACCCTGGCT GGACCACATACTGGCCTCTTTCTTCAACCTCTCTAATATGGGCTCCAGACGGATCTCTAAGGTTCCCAGC TCTCAGGGTTGACTCTGTTCCATCCTCTGTGCAAAATCCTCCTGTGCTTCCCTTTTGGCCCTCTGTGCTCT TGTCTGGTTTTCCCCAGAAACTCTCACCCTCACTCCATCTCCACTGCGGTCTAACAAATCTCCTTTCGT CCCGCTTCCCTTCACATTAGAAAACAAGATCAGCCTGTGCAACATGGTGAAACCTCATCTCTACCAACAA AACAAAAAACACAAAAATTAGCCAGGTGTGGTGCTGCATCCCTATACTCCCAGCAACTCGGGGGGCTGA GGTGGGAGAATGGCTTGAGCCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATCACACCACTGCACTCTAGC TCGGGTGACGAAGCCTGACCTTGTCTCAAAAAATACAGGGATGAATATGTCAATTACCCTGATTTGATCA TAGCACGTTGTATACATGTACTGCAATATTGCTGTCCACCCCATAAATATGTACAATTATGTATACATTT TTAAAATCATAAAAATAAGATAATGCACCGTCTCCACCCCTCTCATATTTACTTTCTGAAGGAAATGTTA GGTCTTCTCAAGGTAAAGTTCTATATTTATTATAGCGTTTAGGCATTTCTTGACCATCTAATGAGTGTAA AACTGTACCACTGGGCCAAGTGCAGTGGATCATGTCTGTAATCCTAGCACTGTGGGAGGCCAAGGCAGGA GGATCGCTTGAGCCCAGGAGTTCAAGACCAGCCTGGGCAACATAGTGAGACCCCATCTCTACTTAAAATA AAGAAGTAAAAATTGTTTTAAAA

FIGURE 7-A

NM 002290 [gi:9845494] Homo sapiens laminin, alpha 4 (LAMA4), mRNA

agaaggtaaaaagggagtggtgagaatqaatqtgagaaggaaqccaggacagcqcagtccccaqtcccqaacggcca gggagaggaggtggcctagcgctggcggggctcaccccaatccgtctgccttttgatgccgtactctgctqqttqcq cagccacctcgggatactgcacacggagaggggaaaataagcgaggcaccgccgcaccacgcggqagacctacgg agacccacagcgcccgagccctggaagagcactactggatgtcagcggagaaatggctttgagctcagcctggcgct gacattgaagggagctcagcggttggcaggcaagacccgcctgagacgagcgaaccccgcgtggctctgggacgcct gccgcctgcggccgagaaatgcaatgctgqattctttcacaccctgtcgggagaatgtgtgccctgcgactgtaatg gcaattccaacgagtgtttggacggctcaggatactgtgtgcactgccagcggaacacaacaggagagcactgtgaa aagtgtctggatggttatatcggagattccatcaggggagcaccccaattctgccagccgtgcccctgtcccctgcc ccacttggccaattttgcagaatcctgctataggaaaaatggagctgttcggtgcattttgtaacgaaaattatgctg gacctaactgtgaaagatgtgctcccggttactatggaaaccccttactcattggaagcacctgtaagaaatgtgac tgcagtggaaattcagatcccaacctgatctttgaagattgtgatgaagtcactggccagtgtaggaattgcttacg caacaccaccggattcaagtgtgaacgttgcgctcctggctactatggggacgccaggatagccaagaactgtgcag tgtgcaactgcggggggggcccatgtgacagtgtaaccggagaatgcttggaagaaggttttgaaccccctacaggc tgtgataagtgcgtctgggacctgactgatgacctgcggttagcagcgctctccatcgaggaaggcaaatccggggt aattgtcagaaagagaaaaccaatacgccctaagaaagatacaaatcaacaatgctgagaacacgatgaaaagcctt ctgtctgacgtagaggaattagttgaaaaggaaaatcaagcctccagaaaaggacaacttgttcagaaggaaagcat ggacaccattaaccacgcaagtcagctggtagagcaagcccatgatatgagggataaaatccaagagatcaacaaca agatgctctattatggggaagagcatgaacttagccccaaggaaatctctgagaagctggtgtttggcccagaagatg cttgaagagattagaagccgtcaaccatttttcacccaacgggagctcgtggatgaggaggcagatgaggcttacga actactgagccaggctgagagctggcagcggctgcacaatgagacccgcactctgtttcctgtcgtcctggagcagc tggatgactacaatgctaagttgtcagatctccaggaagcacttgaccaggcccttaaccatgtcagggatgccgaa gacatgaacagggccacagccaggcagcgggaccatgagaaacaacaggaaagagtgagggaacaaatggaagt ggtgaacatgtctctgagcacatctgcggactctctgacaacacctcgtctaactctttcagaacttgatgatataa taaagaatqcqtcaqqqatttatqcaqaaataqatqqaqccaaaaqtqaactacaaqtaaaactatctaacctaaqt aacctcagccatgatttagtccaagaagctattgaccatgcacaggaccttcaacaagaagctaatgaattgagcag gaagttgcacagttcagatatgaacgggctggtacagaaggctttggatgcatcaaatgtctatgaaaatattgtta attatgttagtgaagccaatgaaacagcagaatttgctttgaacaccactgaccgaatttatgatgcggtgagtggg agactgatcaccgaggaagccaacaggacgacgatggaggtgcagcaggccactgcccccatggccaacaatctaac caactggtcacagaatcttcaacattttgactcttctgcttacaacactgcagtgaactctgctagggatgcagtaa tctqccaqcatccaqaqqatccqaqaqctcattqctcaqaccaqaaqtqttqccaqcaaqatccaaqtctccatqat gtttgatggccagtcagctgtggaagtgcactcgagaaccagtatggatgacttaaaggccttcacgtctctgagcc tgtacatgaaaccccctgtgaagcggccggaactgaccgagactgcagatcagtttatcctgtacctcggaagcaaa aacgccaaaaaagagtatatgggtcttgcaatcaaaaatgataatctggtatacgtctataatttgggaactaaaga tgtggagattcccctggactccaagcccgtcagttcctggcctgcttacttcagcattgtcaagattgaaagggtgg gaaaacatggaaaqgtqtttttaacaqtcccqaqtctaaqtaqcacaqcaqaqqaaaaqttcattaaaaaqqqqqaa ttttcgggagatgactctctgctggacctggaccctgaggacacagtgttttatgttggtggagtgccttccaactt caagctccctaccagcttaaacctgcctggctttgttggctgcctggaactggccactttgaataatgatgtgatca $\verb|gcttgtacaactttaagcacatctataatatggacccctccacatcagtgccatgtgcccgagataagctggccttc|$ atttggtcaggtgactcgctttgacatagaagttcgaacaccagctgacaacggccttattctcctgatggtcaatg $\tt gaagtatgtttttcagactggaaatgcgcaatggttacctacatgtgttctatgattttggattcagcagtggccgt$ $\tt gtgcatcttgaagatacgttaaagaaagctcaaattaatgatgcaaaataccatgagatctcaatcatttaccacaa$ tgataagaaaatgatcttggtagttgacagaaggcatgtcaagagcatggataatgaaaagatgaaaatacctttta cagatatatacattggaggagctcctccagaaatcttacaatccagggccctcagagcacaccttcccctagatatc agttggttatggatgcccagaagactcacttatatctcgcagagcatatttcaatggacagagcttcattgcttcaa ttcagaaaatatctttctttgatggctttgaaggaggttttaatttccgaacattacaaccaaatgggttactattc tattatgcttcagggtcagacgtgttctccatctcactggataatggtactgtcatcatggatgtaaagggaatcaa agttcagtcagtagataagcagtacaatgatgggctgtcccacttcgtcattagctctgtctcacccacaagatatg

FIGURE 7-B

aagaagttttacttcggtggctcaccaatcagtgctcagtatgctaatttcactggctgcataagtaatgcctactt taccagggtggatagagatgtggaggttgaagatttccaacggtatactgaaaaggtccacacttctctttatgagt gtcccattgagtcttcaccattgtttctcctccataaaaaaggaaaaaatttatccaagcctaaagcaagtcagaat aaaaagggagggaaaagtaaagatgcaccttcatgggatcctgttgctctgaaactcccagagcggaatactccaag aaactctcattgccacctttccaacagccctagagcaatagagcacgcctatcaatatggaggaacagccaacagcc gccaagagtttgaacacttaaaaggagattttggtgccaaatctcagttttccattcgtctgagaactcgttcctcc catggcatgatcttctatgtctcagatcaagaagagaatgacttcatgactctattttttggcccatggccgcttggt ttacatgtttaatgttggtcacaaaaactgaagattagaagccaggagaaatacaatgatggcctgtggcatgatg tgatatttattcgagaaaggagcagtggccgactggtaattgatggtctccgagtcctagaagaaagtcttcctcct actgaagctacctggaaaatcaagggtcccatttatttgggaggtgtggctcctggaaaaggctgtgaaaaatgttca qattaactccatctacaqttttaqtqqctqtctcaqcaatctccaqctcaatqqqqcctccatcacctctqcttctc gttctagatgaatctttcaatattqqattqaaqtttgaaattgcatttgaagtccqtcccaqaaqcaqttccqqaac cctggtccacggccacagtgtcaatggggagtacctaaatgttcacatgaaaaatggacaggtcatagtgaaagtca ataatggcatcagagattttttccacctcagtaacacccaagcagagtctctgtgatggcagatggcacagaattaca qttattaqaqattctaatqtqqttcaqttqqatqtqqactctqaaqtqaaccatqtqqttqqaccctqaatccaaa accaattgatcacagggagcctgtgtttgttggaggtgttccagaatctctactgacaccacgcttggcccccagca aacccttcacaggctgcatacgccactttgtgattgatggacacccagtgagcttcagtaaagcagccctggtcagc ggcgccgtaagcatcaactcctgtccagcagcctgacatgacagagcacagctgcccaaatacaaagttctttagag gacttaaacgaatcatcagggaccggatatttcttatttctcatttggattcttaaccttgaatccaaagtgtctgc aatqqacaacaattqaaqqaqqqcaaacttacttqtattqaqaqcacacqcaattcctactqqtqaaattactqtt tctgtttctaataaaatagaagggattccaaataaacacttgcacacattttttgaagtgcggctagattctcagatt gaagaatattttaggtttatagctgaagttatcaaggtttaataaagtaaatttctaaca

FIGURE 8

 NM_001819 [gi:4502806] Homo sapiens chromogranin B (secretogranin 1) (CHGB), mRNA

ccaggaggcacgctggttttccgggggcgctccatcgcgccttcctcctgcgcctcgcttctccggtccagccgcca tetteettteegeacaggggeegeegagegggeeatgeageeaaegetgetteteageeteetgggageegtgggg ctggcggctgtcaattccatgccagtggataacaggaaccacaatgaaggaatggtgactcgctgcatcattgaggt cctctcaaatgccttgtcgaagtccagcgctccacccatcacccctgaqtgccgccaagtcctgaagacgagtagaa aagacgtcaaagacaaagagacaactgaaaatgaaaacacaaagtttgaagtaagattgttaagagacccagctgat gcctcggaagcccacgagtcctccagcaggggagaggcaggagccccagggggaggagacatccaaggcccaacaaa ggcagacacagagaaatgggcagaggggggcacagccgagagcggatgagccccagtggagcctctatc cctccgacagccaagtctctgaagaagtgaagacacgccattctgagaagagccagagaggaggatgaggaggaggag gagggagagaactatcaaaaaggggagcgaggggaagatagcagtgaagagaaacaccttgaagagccaggagagac acaaaacgcttttctcaatgaaagaaagcaggcttcagctataaaaaaagaggagttagtggccagatcggaaacac caggagaatcacccccaggagtctaaaggccaaccccgaagccaggaagaatctgaggaaggtgaggaagatgccac ggagtcttccctctgaggaaaagggacacccccaggaggaatctgaggagtcaaacqtcagcatggccagtttaggg gaaaagagggaccaccattcaacccactacagggcttcagaggaagaacctqaatatggagaagaaataaagggtta tccaggcgtccaggcccctgaggacctggagtgggagcgctataggggcagagggaagtgaagaatacagggctccaa gacctcagagtgaggagattgggatgaggaggacaagagaaactaccccagcttagagcttgataagatggcacat ggatatggtgaagaaagtgaggaagagggggccttgagccgggaaagggacgccatcacagaggcaggggagggga accagatggacaaggcaaggaggcatccacaaggtgcgtggaaagagctggacagaaattatctcaactacggtgag gaaggagccccagggaagtggcagcagcagggagacctgcaggacactaaagaaaacagggaggaagctaggtttca agataaacaatatagctcccatcacacagctgaaaagaggaagagattaggggaactgttcaacccatactacgacc gagctgaccttgaacgagaagaatttcttcccagaatacaactatgactggtgggagaaaaagcccttctctgagga tgtqaactgggggtatgagaagagaaacctcgccagggtccccaagctggacctgaaaaggcaatatgacagggtgg cccaactggaccagctccttcactacaggaagaagtcagctgagtttccagacttctatgattctgaggagccggtg agcacccaccaggaggcagaaaatgaaaaggacagggctgaccagacagtcctgacagaggacgagaaaaaagaact cgaaaacttqqctqcaatqqatttqqaactacaqaaqataqctqaqaaattcaqccaaaqqqqctqactqtcattqq agcqqtqqqcactqttaaqaaqcaqccatcacatqatctqtttttcaccacttcactqaaaqacaccatttatatac ccaaqqqcaqaaaqtaqaacttactattcattaaatqtttqacacaattqqaattqtctttaatttctqtcaqaatq ctattgaaaatqtgaattqcatqacttqtaqcatattcttttctqcaaaataqacatattaacatqcttatqacaat qactqtqctactqtctttqqaaaaatqtttqtctcaqttqqaaataataaaaqattcacctqaqacc

FIGURE 9

XM_294692 [gi29746497] Homo sapiens hypothetical LOC338749 (LOC338749),
mRNA

ttcagacctgtagatgggctcttcttggacattctggagtccctgggggaaagggaagtctgaagctcagttggccacctctgcataacaaataccgagagcactgcaagtggagcttggacaaggtctggaaaatcagccttcttctggatgcctccagcctttgctatcatctgcctaggaggttggaagttactcaagcggctcaaggaaaagtccctatttctgttgcagttgattttggagttatgtgtagcccatcagaagtaagcagaaaactttgtgccgttttctatcctggaaataacacccccgcccctggccccgctgcattatcagccactcctcttcactcctttctatggctccagaagtgaagagctctgaaatgcctaaattgccagatgggaacatctttactgcttggagaaagccacacaggagttacctgacctgccttggatggtgacatgatgagaaataaacctttgttgggttagactgct

FIGURE 10-A

Ensembl- GP6 protein sequence ENSP00000308782

rs1671152 (G/T = K = T323K)

MSPSPTALFCLGLCLGRVPAQSGPLPKPSLQALPSSLVPLEKPVTLRCQGPPGVDLYRLE KLSSSRYQDQAVLFIPAMKRSLAGRYRCSYQNGSLWSLPSDQLELVATGVFAKPSLSAQP GPAVSSGGDVTLQCQTRYGFDQFALYKEGDPAPYKNPERWYRASFPIITVTAAHSGTYRC YSFSSRDPYLWSAPSDPLELVVTGTSVTPSRLPTEPPSPVAEFSEATAELTVSFTNEVFT TETSRSITASPKESDSPAGESCPPVLHQGQPGPDMPRGCDPNNPGGVSGRGLAQPEEAPA AQGQGCAEAASAPPAPPADPEIKRGSGWRPTGCSQPRVMFMTAEPQARSYPREGSWHGRR LKDWRVWSVEAGGQRLQLWKRGHAASSWCSIREPFGQCLSVCLPLCLRAPSIWDGRNLWR PHPPPCTLWMTWYPGWTTYWPLSSTSLIWAPDGSLRFPALRVDSVPSSVQNPPVLPFGPL CSCLVFPRNSHPHSISHCGLTNLLSSLRTGLAGSLGMSFIFLSVKLARCPLPFTLENKIS LCNMVKPHLYQQNKKTQKLARCGGASLYSQQLRGLRWENGLSLGGRGCSELRSHHCTLAR VTKPDFVSKNTGMNMSITLI

FIGURE 10-B

Ensembl - Q9HCN7 protein sequence ENSP00000334552

rs1671152 (G/T = K = H304N) 321 aa

MSPSPTALFCLGLCLGRVPAQSGPLPKPSLQALPSSLVPLEKPVTLRCQGPPGVDLYRLE KLSSSRYQDQAVLFIPAMKRSLAGRYRCSYQNGSLWSLPSDQLELVATGVFAKPSLSAQP GPAVSSGGDVTLQCQTRYGFDQFALYKEGDPAPYKNPERWYRASFPIITVTAAHSGTYRC YSFSSRDPYLWSAPSDPLELVVTEFSEATAELTVSFTNEVFTTETSRSITASPKESDSPA GPARQYYTKGNLVRICLGAVILIILAGFLAEDWHSRRKRLRHRGRAVQRPLPPLPPLPT RKSNGGQDGGRQDVHSRGLCS

FIGURE 10-C

NCBI - GP6 protein sequence NP_057447

339 aa

MSPSPTALFCLGLCLGRVPAQSGPLPKPSLQALPSSLVPLEKPVTLRCQGPPGVDLYRLEKLSSSRYQDQ AVLFIPAMKRSLAGRYRCSYQNGSLWSLPSDQLELVATGVFAKPSLSAQPGPAVSSGGDVTLQCQTRYGF DQFALYKEGDPAPYKNPERWYRASFPIITVTAAHSGTYRCYSFSSRDPYLWSAPSDPLELVVTGTSVTPS RLPTEPPSSVAEFSEATAELTVSFTNKVFTTETSRSITTSPKESDSPAGPARQYYTKGNLVRICLGAVIL IILAGFLAEDWHSRRKRLRHRGRAVQRPLPPLPPLPPTRKSHGGQDGGRQDVHSRGLCS

FIGURE 11-A

NP 002281 [gi:4504949] laminin, alpha 4 precursor

MALSSAWRSVLPLWLLWSAACSRAASGDDNAFPFDIEGSSAVGRODPPETSE PRVALGRLPPAAEKCNAGFFHTLSGECVPCDCNGNSNECLDGSGYCVHCQRN TTGEHCEKCLDGYIGDSIRGAPQFCQPCPCPLPHLANFAESCYRKNGAVRCIC NENYAGPNCERCAPGYYGNPLLIGSTCKKCDCSGNSDPNLIFEDCDEVTGQC RNCLRNTTGFKCERCAPGYYGDARIAKNCAVCNCGGGPCDSVTGECLEEGFE PPTGCDKCVWDLTDDLRLAALSIEEGKSGVLSVSSGAAAHRHVNEINATIYLL KTKLSERENQYALRKIQINNAENTMKSLLSDVEELVEKENQASRKGQLVQKE SMDTINHASQLVEQAHDMRDKIQEINNKMLYYGEEHELSPKEISEKLVLAQK MLEEIRSROPFFTORELVDEEADEAYELLSOAESWORLHNETRTLFPVVLEOL DDYNAKLSDLQEALDQALNHVRDAEDMNRATAARQRDHEKQQERVREQM EVVNMSLSTSADSLTTPRLTLSELDDIIKNASGIYAEIDGAKSELQVKLSNLSN LSHDLVOEAIDHAODLOOEANELSRKLHSSDMNGLVOKALDASNVYENIVN YVSEANETAEFALNTTDRIYDAVSGIDTQIIYHKDESENLLNQARELQAKAES SSDEAVADTSRRVGGALARKSALKTRLSDAVKQLQAAERGDAQQRLGQSRL **ITEEANRTTMEVOOATAPMANNLTNWSONLOHFDSSAYNTAVNSARDAVRN** LTEVVPQLLDQLRTVEQKRPASNVSASIQRIRELIAQTRSVASKIQVSMMFDG QSAVEVHSRTSMDDLKAFTSLSLYMKPPVKRPELTETADQFILYLGSKNAKK EYMGLAIKNDNLVYVYNLGTKDVEIPLDSKPVSSWPAYFSIVKIERVGKHGK VFLTVPSLSSTAEEKFIKKGEFSGDDSLLDLDPEDTVFYVGGVPSNFKLPTSLN LPGFVGCLELATLNNDVISLYNFKHIYNMDPSTSVPCARDKLAFTQSRAASYF FDGSGYAVVRDITRRGKFGOVTRFDIEVRTPADNGLILLMVNGSMFFRLEMR NGYLHVFYDFGFSSGRVHLEDTLKKAOINDAKYHEISIIYHNDKKMILVVDRR HVKSMDNEKMKIPFTDIYIGGAPPEILOSRALRAHLPLDINFRGCMKGFOFOK KDFNLLEQTETLGVGYGCPEDSLISRRAYFNGOSFIASIOKISFFDGFEGGFNFR TLOPNGLLFYYASGSDVFSISLDNGTVIMDVKGIKVOSVDKOYNDGLSHFVIS SVSPTRYELIVDKSRVGSKNPTKGKIEOTOASEKKFYFGGSPISAOYANFTGCI SNAYFTRVDRDVEVEDFQRYTEKVHTSLYECPIESSPLFLLHKKGKNLSKPKA SQNKKGGKSKDAPSWDPVALKLPERNTPRNSHCHLSNSPRAIEHAYQYGGTA NSRQEFEHLKGDFGAKSQFSIRLRTRSSHGMIFYVSDQEENDFMTLFLAHGRL VYMFNVGHKKLKIRSQEKYNDGLWHDVIFIRERSSGRLVIDGLRVLEESLPPT EATWKIKGPIYLGGVAPGKAVKNVQINSIYSFSGCLSNLQLNGASITSASQTFS VTPCFEGPMETGTYFSTEGGYVVLDESFNIGLKFEIAFEVRPRSSSGTLVHGHS VNGEYLNVHMKNGQVIVKVNNGIRDFSTSVTPKQSLCDGRWHRITVIRDSNV VOLDVDSEVNHVVGPLNPKPIDHREPVFVGGVPESLLTPRLAPSKPFTGCIRHF VIDGHPVSFSKAALVSGAVSINSCPAA

FIGURE 11-B

LAMA4 Domains

Gene	Prediction Method	Accession ID	Domain Description	Start	End
LAMA4	Pfam	PF00053	Laminin_EGF	82	129
LAMA4	Pfam	PF00053	Laminin_EGF	132	184
LAMA4	Pfam	PF00053	Laminin_EGF	187	241
LAMA4	Pfam	PF06008	Laminin Coiled-coil I	297	555
LAMA4	Pfam	PF06009	Laminin Coiled-coil II	734	861
LAMA4	Pfam	PF00054	Laminin_G	1079	1213
LAMA4	Pfam	PF00054	Laminin_G	1499	1629
LAMA4	Pfam	PF00054	Laminin_G	1676	1804
LAMA4	prosite	PS00022	EGF_like	155	166
LAMA4	prosite	PS00225	Crystallin	1107	1122
LAMA4	prosite	PS01248	Laminin_EGF	98	132
LAMA4	prosite	PS01248	Laminin_EGF	155	189
LAMA4	prosite	PS01248	Laminin_EGF	209	243
LAMA4	pfscan	PS50027	Laminin_EGF	79	125
LAMA4	pfscan	PS50027	Laminin_EGF	129	181
LAMA4	pfscan	PS50027	Laminin_EGF	184	236

FIGURE 12

NP_0001810 [gi:4502807] chromogranin B precursor; Chromogranin B
(secretogranin B) [Homo sapiens]

MQPTLLLSLLGAVGLAAVNSMPVDNRNHNEGMVTRCIIEVLSNALSKSSAPPI TPECRQVLKTSRKDVKDKETTENENTKFEVRLLRDPADASEAHESSSRGEAG APGEEDIQGPTKADTEKWAEGGGHSRERADEPQWSLYPSDSQVSEEVKTRHS EKSQREDEEEEEGENYQKGERGEDSSEEKHLEEPGETQNAFLNERKQASAIKK EELVARSETHAAGHSQEKTHSREKSSQESGEEAGSQENHPQESKGQPRSQEES EEGEEDATSEVDKRRTRPRHHHGRSRPDRSSQGGSLPSEEKGHPQEESEESNV SMASLGEKRDHHSTHYRASEEEPEYGEEIKGYPGVQAPEDLEWERYRGRGSE EYRAPRPQSEESWDEEDKRNYPSLELDKMAHGYGEESEEERGLEPGKGRHHR GRGGEPRAYFMSDTREEKRFLGEGHHRVQENQMDKARRHPQGAWKELDRN YLNYGEEGAPGKWQQQGDLQDTKENREEARFQDKQYSSHHTAEKRKRLGE LFNPYYDPLQWKSSHFERRDNMNDNFLEGEEENELTLNEKNFFPEYNYDWW EKKPFSEDVNWGYEKRNLARVPKLDLKRQYDRVAQLDQLLHYRKKSAEFPD FYDSEEPVSTHQEAENEKDRADQTVLTEDEKKELENLAAMDLELQKIAEKFS QRG

FIGURE 13

XP_294692 [gi:29746498] hypothetical protein XP_294692 [Homo sapiens]

 $\label{lem:mpafaiiclggwkllkrlkekslfllqliwsyvmcspsevsrklcavfypgn \\ ntpapwprciishsssllsmapevkssempklpdgniftawrkphrsyltclg \\ w$

FIGURE 14

GP6

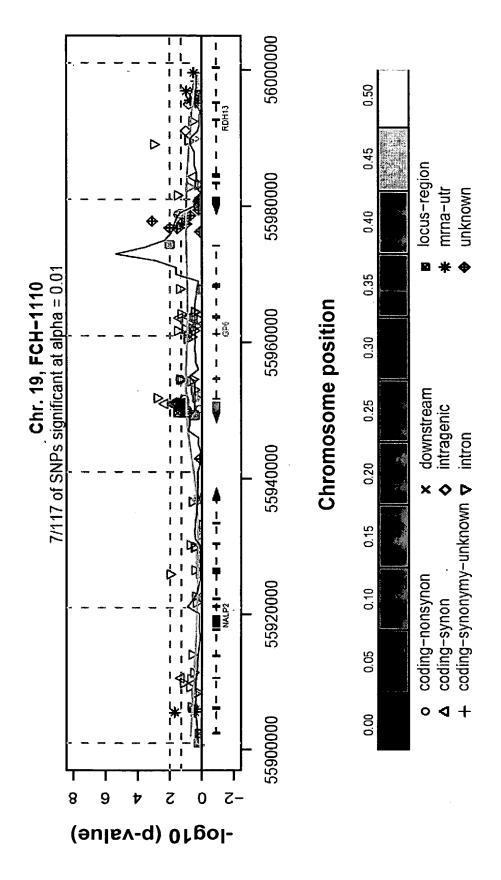


FIGURE 15

LAMA4

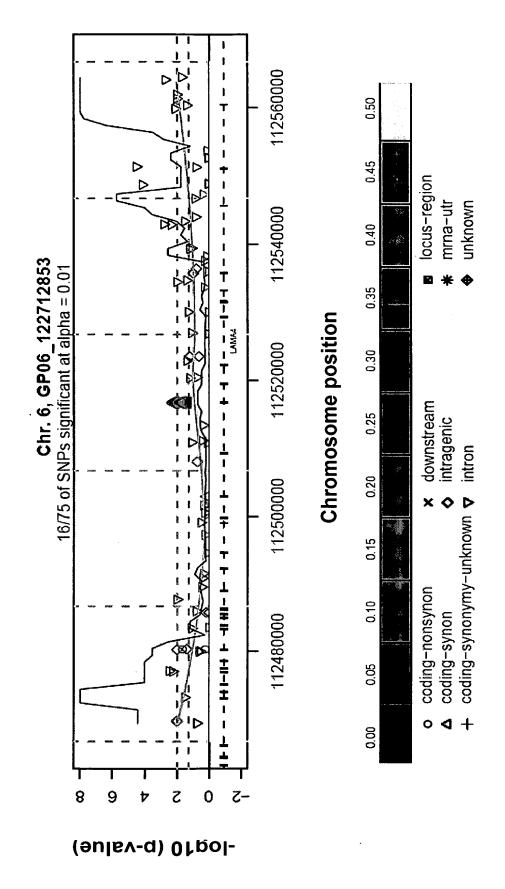


FIGURE 16

C20orf154 & CHGB Region

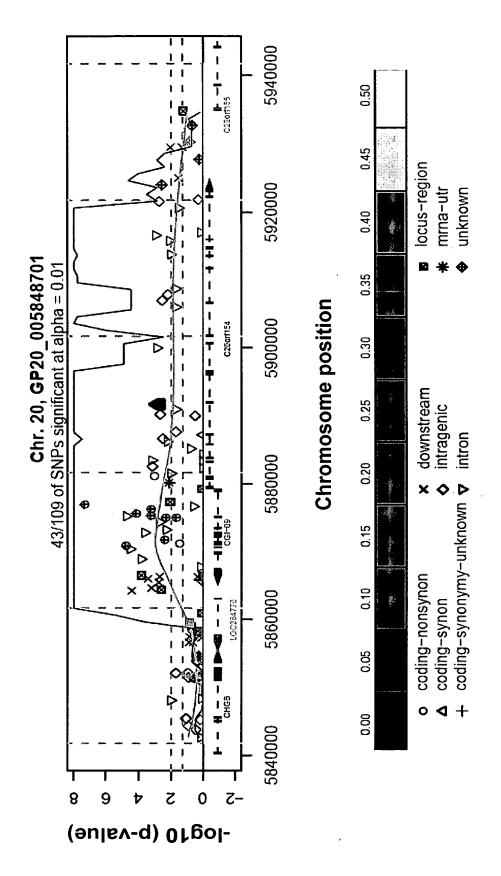
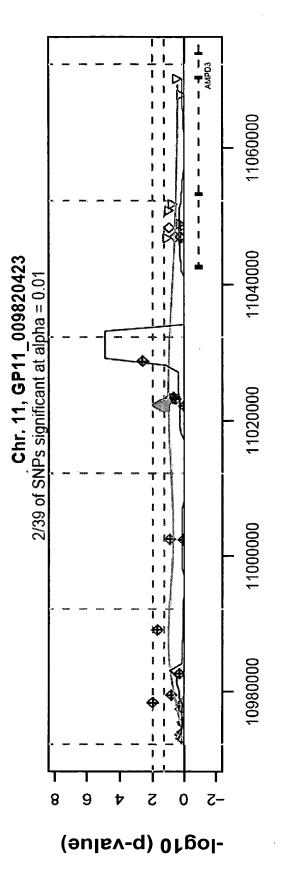


FIGURE 17

LOC338749





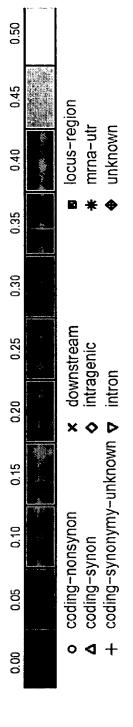
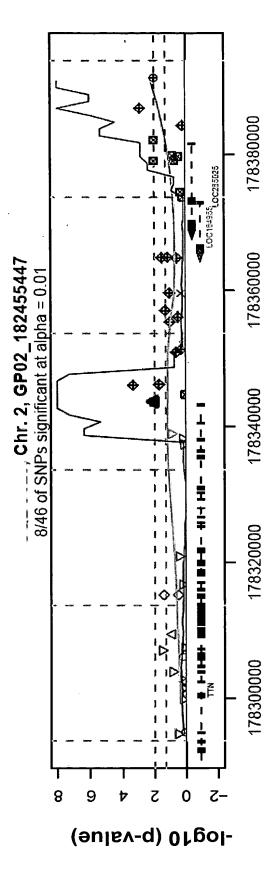


FIGURE 18

NL



Chromosome position

